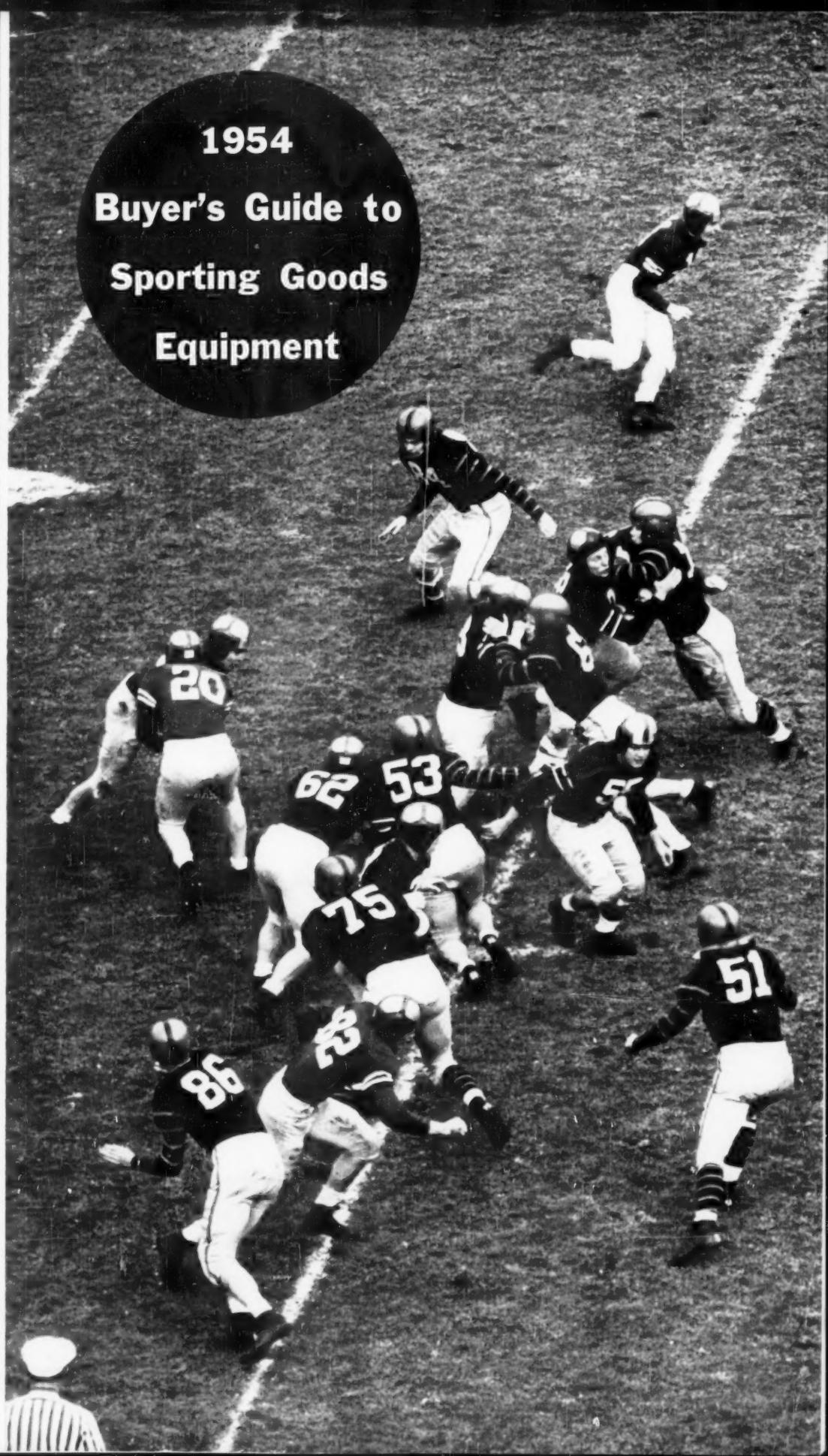


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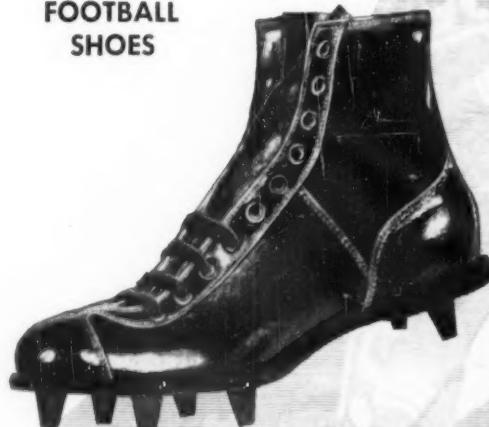
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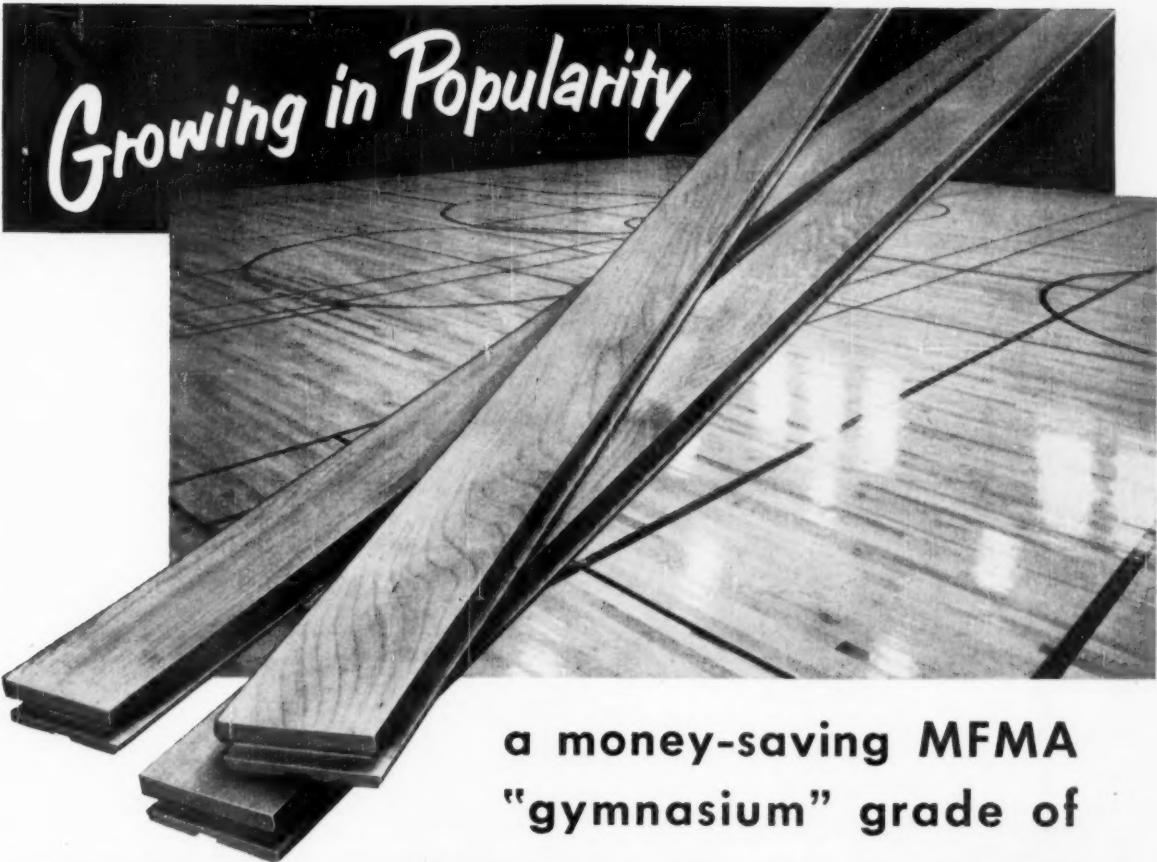
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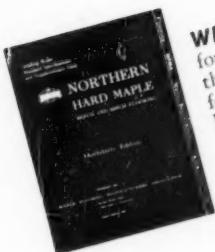
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IN THIS ISSUE

HERE BELOW (Hits, Runs and Eras)	5
BEATING THE T WITH A CRASHING END by Frank Van Deren	7
SIMPLIFIED NUMBERING FOR A MULTIPLE OFFENSE by Biggie Munn	10
30 TEAM DEFENSES by Charlie Law	12
A VISUAL AID FOR TENNIS by George Stromgren	16
BUILDING DESIRE IN FOOTBALL by Marv Levy	18
BUYER'S GUIDE TO SPORTING GOODS EQUIPMENT	21
INDEX TO SCHOLASTIC COACH ARTICLES, 1953-54	36
COACHES' CORNER	38
NEW BOOKS ON THE SPORT SHELF	40
YEAR-ROUND ORGANIZATION FOR H. S. FOOTBALL by Hank Ostro	46
SPARE THE (HOT) ROD AND SPOIL THE CHILD by Bruce H. Bellard	50

Photo courtesy of Princeton University
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Publisher • G. HERBERT McCACKEN
Editor • HERMAN L. MASIN
Advertising Manager • OWEN REED
Art Director • MARY JANE DUNTON

SCHOLASTIC COACH IS ISSUED MONTHLY TEN TIMES DURING THE ACADEMIC YEAR (SEPTEMBER THROUGH JUNE) BY LAKESIDE PUBLISHING COMPANY, A SUBSIDIARY OF SCHOLASTIC CORPORATION, M. R. ROBINSON, PRESIDENT, PUBLISHERS OF SCHOLASTIC MAGAZINES FOR HIGH SCHOOL STUDENTS.

ADDRESS ALL EDITORIAL AND ADVERTISING COMMUNICATIONS AND ALL CORRESPONDENCE CONCERNING SUBSCRIPTIONS AND CIRCULATION TO SCHOLASTIC COACH, 33 WEST 42 ST., NEW YORK 36, N. Y.

SUBSCRIPTIONS FOR THE UNITED STATES, \$2 A YEAR. CANADA, \$2.25. FOREIGN, \$2.50. BACK ISSUES CURRENT VOLUME, 25¢; PREVIOUS VOLUMES, 50¢.

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Hits, runs and eras

WE HOPE Mr. Godfrey won't mind if we check our humility at the door this month and take a couple of bows. It seems that one of our recent performances laid 'em in the aisles from coast to coast, and the "olés" are still ringing.

We refer to our April editorial, "The EPC Unloads a Bomb," in which we took issue with the Educational Policies Commission's report on school athletics. We must have hit the nail right on the proboscis, for look at the reaction our critique produced.

From Mr. L. V. Phillips, Commissioner of the Indiana H.S.A.A., came this sterling testimonial:

"Congratulations for unloading a bomb on the E.P.C.'s report. I subscribe 100% to your editorial. If reprints are available, I could use 100 or more to send to members of the Policies Commission, the NEA Board of Directors, Executive Committees, and others. If reprints are not available, could I have permission to reproduce the article?"

Much the same sentiment is echoed by Mr. Thomas A. Pigott, Secretary-Treasurer of the Oregon School Activities Assn., who writes:

"Your editorial, 'The EPC Unloads a Bomb,' impressed me very much. I feel it expresses the true sentiment of the many school administrators throughout the nation. I'd like your permission to mimeograph this article and send it out in our monthly publication to all the administrators in the state of Oregon. I believe it would have a very good effect upon their thinking."

Mr. H. V. Porter, secretary of the National Federation, tells us "Your editorial in the April issue strikes a responsive chord. It is well-written and puts the finger on vital spots in the report."

And the Tennessee Secondary School Athletic Assn. hails the editorial as being "one of the best of the many excellent replies to some of the suggestions made in the recent brochure issued by the E.P.C. If you

missed reading it, it will be worth your while to look it up and read it."

Honestly, gentlemen, we're deeply flattered and deeply appreciative.

A VOTE FOR THE "MODERNS"

ONE of the characters we'd miss least if marooned on a traffic island is the antediluvian bore who keeps blabbing about the superiority of the athletes "of my day."

That "day" may be the gray '90s, the early 1900's, or the late 1920's. But whatever it is, it can't compare athletically with the modern "day." Our modern athlete is far superior to his fusty counterpart. How can he help it, when:

1. He's taller and heavier.
2. He knows tremendously more about training and conditioning.
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4. He's coached by infinitely better trained instructors.
5. He's the beneficiary of improved equipment and facilities.

We're convinced that the 1952 Michigan State eleven could have spottet any pre-1930 team 50 points; that Joe Louis could have toyed with Jim Jeffries; and that the Minneapolis Lakers could have murdered the Original Celtics by 30 points.

But how can you prove this to a moldy fig? You can't. It's all conjecture. The marked differences in playing conditions makes it impossible to compare the records of one era with those of another—impossible, that is, with respect to such sports as baseball, basketball, and football.

There are sports, however, which DO permit accurate comparisons. In swimming and track, for example, the standards of performance have remained constant through the years, enabling the expert to weigh the athletes of one generation against those of another. And in

every instance, the modern athlete emerges on top!

In swimming, for example, there are nine world records—and none of them goes farther back than 1949!

Now take track, a sport in which the athletes have been running the same distances, leaping into the same air, and throwing the same objects since time immemorial.

The record book clearly establishes the superiority of the current generation. Of the 21 world records, more than half were set since 1952! And only 5 go back before 1948!

Even more startling is the fact that many *high school* boys of today are turning in better marks than the *world record* holders of the Jim Thorpe era (1912). Of the 11 world records of that day, more than half—or 6, to be exact—have been bettered by American schoolboys!

For example, the world record for the 100 in 1912 was 9.6. Jesse Owens was a Chicago schoolboy when he ran the distance in 9.4 in 1933. The current world record is 9.3 set by Mel Patton in 1948.

The 220-yard dash record was 21.2. Owens ran it in 20.7 as a kid, and Patton set the current world mark of 20.2 in 1949.

In 1912, the world high hurdle record was 15 flat. Two high school athletes—Joe Batiste and Leroy Kilpatrick—have done it in 14.5, while Dick Attlesey lowered the world record to 13.5 in 1950.

The same story holds true in the field events. The 1912 world pole vault record was 13-1. Last year Ron Morris, of Burroughs H.S., Burbank, Cal., soared 13-11. The present world mark, of course, is Warmerdam's 15-7 $\frac{3}{4}$, set in 1942.

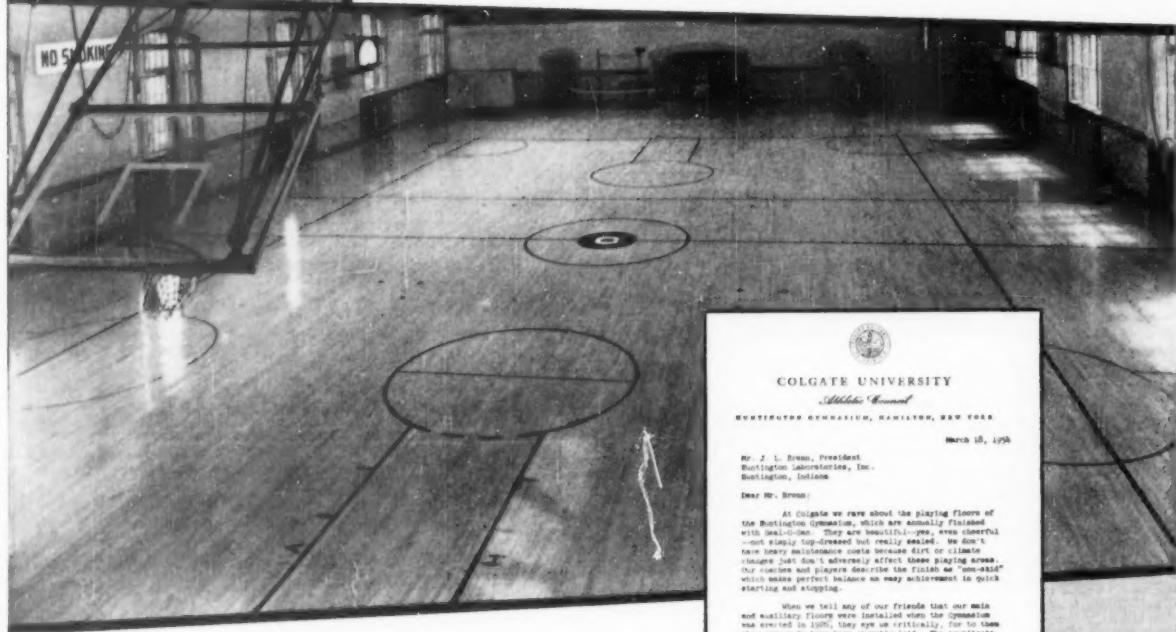
The javelin record in 1912 was 204 $\frac{5}{8}$. The current high school mark is 219 and the world record is 263-10 (pending)—representing nearly 60 feet improvement!

The high jump mark was 6-7 in 1912. Gil LeCava, a high school kid, (Continued on page 52)



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FIG. 1, the fundamental three-point stance.

By FRANK VAN DEREN

All-Coast End, U. of California 1948-49
Asst. Coach, Santa Rosa Jr. College

Beating the T With a Crashing End

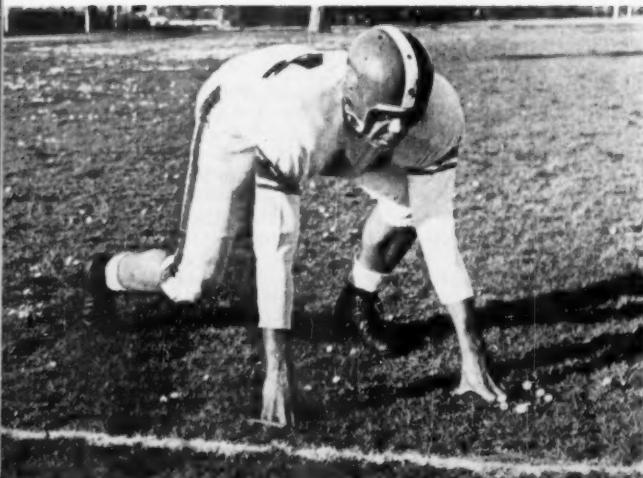


FIG. 2, the fundamental four-point stance.



FIG. 3, the angle of the end's charge.

THE crashing end constitutes a potent defensive weapon against the T. I can vouch for that from personal experience both as a player and a coach. My end coach at California was Edgar (Eggs) Manske, a former All-American end at Northwestern. He introduced us to a simple but vicious type of end play which, though requiring constant practice and concentration to master, provided us with a tool second to none in effectiveness.

As a coach I've been teaching this type of crashing end play; and with all due modesty, I believe it has achieved outstanding results.

In this article I'd like to explain the salient features of this system. No attention will be given to coordinated stunting by end and linebacker or by end and tackle. The end herein will have a definite assigned territory, and my purpose will be to describe how he executes his assignments.

STANCE. To crash, it's imperative to possess a fast start and charge. For the fastest getaway possible, the end must employ a variation of the sprinter's start—either from a three-point (Fig. 1) or four-point (Fig. 2) stance.

The basic stance resembles the "get set" position. The back is horizontal to the ground with as little bow as possible, legs are partially extended, arm(s) fully extended, and head is up for proper vision. The weight is forward, but not to the extent where the body is off-balance and out of control. The feet are staggered about 18", depending on the individual.

(Continued on next page)



FIG. 4, simulating an end run. Defensive right end (No. 84) has veered in behind blocker and is about to establish contact with runner the instant he receives qb's pitch-out. See Diag. 1 for delineation of the maneuver.

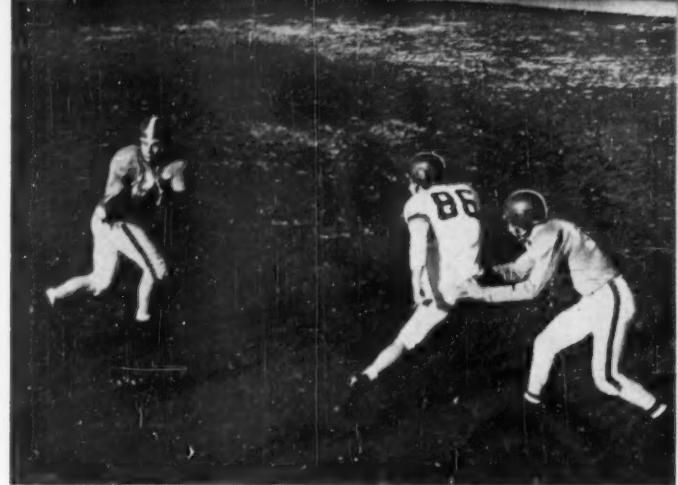


FIG. 5, an end run with a flanking back. Right end (No. 86) has beat flanker and is veering to meet runner about to receive pitch-out. Flanker has tried to block end by cutting back on him from basic flanked position.

A narrow base is advisable because of the starting potential. Since the end doesn't meet opposing linemen on the line of scrimmage, as do the interior linemen, lateral support isn't immediately needed. In the three-point stance, the arm on the same side as the trailing leg is used for support.

START. The same principles as in sprinting apply, the only difference being the stimulus. Where the sprinter depends on an audio stimulus, the end relies on a visual cue. Starting must involve reflex action, with as little thought process as possible.

If the end concentrates on the stimulus, his attention will have to switch from the ball snap to the actual start. This is a time-waster. Where the man concentrates on the act of starting, there's no switch, or thought process, and the start is the result of reflex action. Drills on the snap of the ball

will do much to develop this motor consciousness.

In order to move the body weight from a stationary position to the fastest possible speed obtainable within four to five yards, both extensors must be employed at the start. The end has to push off with both legs until the trailing leg is almost fully extended. Then the first step is taken.

Body reflexes will prevent him from falling forward. The charge is directed outward, not upward, since a crouched position is necessary when contact is established.

ANGLE OF CHARGE. Against an offensive end normally spaced 1 to 2 yards from the tackle, the defensive end takes a position about $1\frac{1}{2}$ yards on the outside. The angle of his charge is directed at the near halfback; or, if flanked, at the spot where he would normally be. (See Fig. 3.) Against a Winged T, he directs his charge at the near wingback.

RESPONSIBILITIES. Against the running game, the crashing end is responsible for (1) the outside sweeps and (2) the off-tackle slants. To play the sweep properly, he must be relieved of stopping anything inside tackle, such as the direct hand-off on the "quickie," because of the danger of the fake hand-off and pitch-out.

On plays away from his assigned territory, he first makes sure there's no possibility of a reverse or "bootleg," then angles down field in case the runner cuts in toward the middle. The end always has an assigned territory, and he must not relax if the play doesn't develop toward him.

Against the passing game, the end is the first line of defense, exerting pressure on the passer with a hard charge. Once the pass is thrown, he must be alert for an interception and immediately get in position to block. From his deep position in the opposing backfield, he has an excellent blocking angle whenever the pass is intercepted in the semi-flat territory of either defending halfback.

OUTSIDE. The end is responsible for an area bounded by an imaginary line running from the offensive end to the near halfback, and the sideline. In order to charge at this angle at full speed and still be able to cover this territory if a sweep develops, he must be alert to certain moves that the backs will make when attempting an end run.

Most sweeps are designed with at least one back leading the interference. Under these conditions, the end, when noting the backs' flare to the sideline, will veer his charge into the man following the lead back. When veering, he doesn't slow his charge, but changes course to the outside.

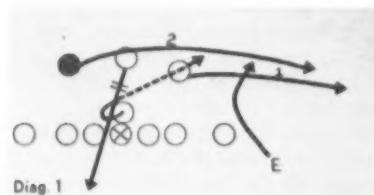
Note that his concentration is on the second offensive back, the logical ball-carrier. By veering in behind the lead back, he makes it impossible for the latter to change direction in time to attempt a block.

Fig. 4 and Diag. 1 offer examples of a typical sweep involving two offensive backs. Proper timing is important. The end must veer at the instant the second back flares toward the sideline.

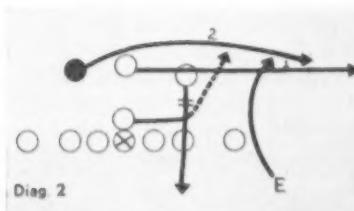
The same principle is involved when the fake is to the near halfback, as in the "quickie." The end must disregard the "quickie" and veer immediately into the second back regardless of who receives the ball, as shown in **Diag. 2**.

If the end can avoid contacting the interferer by veering in behind him, as in **Fig. 4**, the play will suffer a considerable loss. However, the blocker may not run at the proper angle to permit such a maneuver. Instead of running a path to the sideline with the idea of having the end come to him, the blocker may charge almost directly at him and attempt a driving shoulder block.

In this case, the defensive end must jolt the blocker with his inside shoulder, making sure to protect his blocking surface by staying low and using his forearms. Immediately after con-



On typical sweep, end must veer at instant second back flares to side.



Same rule is involved when fake is to near halfback, as on a "quickie."



FIG. 6, an end run. The defensive right end is keeping the blocker away from his legs by smart use of his hands. The end is in excellent position to leave the blocker if and when the ball-carrier moves up the field.



FIG. 7, an off-tackle slant. Offensive left guard has pulled out of the line to block defensive right end. Latter has met guard with power and is raising him, thus forcing runner to cut inward and away from designed hole.

tact, he must leave the interferer and cover to the outside. If he wastes time by fighting the blocker, the runner will be gone. **Diag. 3** illustrates this situation.

The success of the T formation depends on the deception of the backfield. Where the defense reacts to their first maneuver, it will often take itself out of position to stop a running play.

The key to the success of the crashing end is having an assigned territory and knowing when to cover it. When two or more backs flare to the outside, he reacts to the second man. The question arises: "What if the pitch-out goes to the near halfback?"

In this contingency, the end's responsibility depends on the defense. If a 5-3 or tight 6-2 is used, the end isn't responsible for a naked sweep, because the wide linebacker and halfback are in position to cover. However, if a wide 6-2 (tight linebackers), 7-1, 8-2, or any defense is used where the linebackers are out of position to cover the sweep, the end must veer with the first back.

On the delayed pitch-out, as in a double fake, the crashing end will find himself in excellent position to intercept the lateral. By the time it takes the quarterback to do his faking, the end will have covered enough territory to be in an embarrassing position for the offense.

Up until now, no mention has been made of the optional run pitch-out as employed in the Split T. The same principles are involved here as in the normal T. The defensive end must cover the wide men, and leave the quarterback to the interior linemen and linebackers. He veers into the flare backs in the same manner and must not react to any faking of the quarterback.

Remember, he cannot be in two places at once. Thus, if he attempts to cover the lateral motion of the quarterback, he'll force the pitch-out—which may well materialize into a substantial gain. On the other hand,

by covering the flare backs (veering with the first back in this case), he may not only minimize the success of the end run, but can be in position to intercept the lateral.

FLANKER SITUATION. When the back breaks from the huddle for his flanked position, the end must consider him a potential blocker on a sweep. If he flanks wide, 7 or more yards from the defensive end (as in **Diag. 4**), he may disregard him and crash at full speed.

From such a wide flank, the back won't be able to cut back on the end before he makes contact with the ball-carrier. In this case, the end is still keying on the second back, as the flanker is considered No. 1.

In a situation where the flanker takes a tighter position, from 3 to 5 yards, the defensive end widens with him. From here, if a sweep develops, he's in excellent position to stop or force the play. If the offense runs a slant, he must leave the flanker and come down the line of scrimmage in an attempt to meet it.

When playing the flanker with his hands, the end's attention must be to the inside in order to determine the type of play that's developing.

To be on the safe side, the end should move with the flanker when he trots from the huddle to his flanked position. If he continues more than 5 to 6 yards from the defensive end position, the end should leave the flanker and return to his original spot as fast as possible—then crash. If the flanking back stops sooner, he must be played wide because of his blocking potential.

Before any attempt is made to "beat" the flanker, the end must have confidence in his start and charge. He must know how wide a flanker must be before crashing. When inexperienced ends crash with a flanker outside, they generally will stop if an end run develops—thus becoming stationary targets for the flanker.

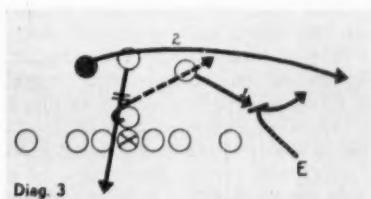
Whenever the defensive end de-

cides to crash, under no circumstances should he stop. **Fig. 5** illustrates the end beating the flanker to the crossroads.

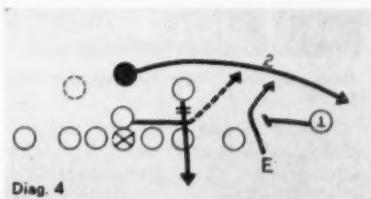
PLAYING THE BLOCKER. The foregoing represents the ideal situation where the crashing end has upset the sweep by his fierce charge and split-second reaction. On many occasions, however, he'll find himself veering into a blocker and thus being forced to "float." He'll then have to employ defensive tactics to ward him off. Nevertheless, he should penetrate into offensive territory and prevent the blocker from forcing him beyond the line of scrimmage.

The initial contact with the blocker may be with the shoulder or forearm, but the heel of the hands with the arms almost fully extended should be used to ward him off. A continuous pushing action against the blocker's

(Continued on page 42)



Diag. 3
If blocker charges him, end should jolt him and then cover outside.



Diag. 4
If flanker sets wide, end may disregard him and crash at full speed.



By BIGGIE MUNN

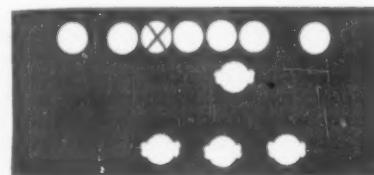
Simplified Numbering for

would be our *right end* on the *right formation*, would also be our strong-side end or our *left end* if we went into *left formation* (**Diag. 2**).

This holds true all the way along the line and enables us to run our entire offense from a left formation without any additional blocking assignments. The only change would be that, from right formation, the linemen pull or block in the opposite direction.

The last digit of any signal given in our system tells where the ball is going to be run. In other words, for any signal ending in "1," the play will end up at the strong-side flank. When any signal is called ending with the number of one of our offensive linemen, it means that the play will go over him and that he will have a key block on the play.

For example, we might hit over a single man using a half-dozen different techniques in the backfield, but the fact that his number was the last digit of the signal would immediately tell him the play was eventually going to hit over him and that he would have a key block to perform.



Diag. 3, the "Zero" Formation.

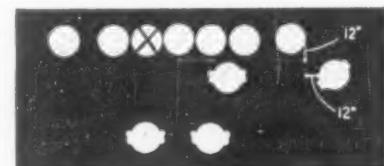
This system enables us to have our blockers operate by principles that, with every few exceptions, are workable against any and all types of defenses.

In describing the development of our offense, I will start by giving you the signal series used in our single wing attack, and then attempt to show the flexibility of our numbering system and the way we're able to correlate the variety

of offensive formations to this same principle of numbering offensive men.

We have divided all of our single wing plays into two categories. For any play numbered from zero through 99, we have our right halfback in a deep position. This "zero formation" is shown in (**Diag. 3**).

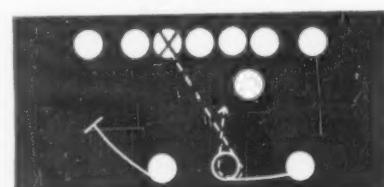
When the right halfback assumes a position as an upwing or a flanker, it automatically becomes a 100-type formation (**Diag. 4**). In a "22" play, for example, the halfback is in a deep position, but if he were to move to an up position, the play would be called "122."



Diag. 4, the "100" Formation.

We have divided our offense into different series. We do not number the backfield men. The signal series is presented to the boys in this manner: zero to 10 are plays where the ball is passed to the fullback and he hits directly at any point along the line.

In the 10 to 20 series, the ball will go to the fullback and he will either give the ball to the wingback on a reverse or will fake to him, keeping the ball and carrying into the line. On this spin series, the fullback naturally always spins toward his wingback (**Diag. 5**).



Diag. 5, the 10 to 20 Series.

MICHIGAN STATE'S numbering system is very simple and at the same time flexible and effective. Adaptable for use on any level of football, its effectiveness has been proved in post-season all-star games, where few practices are available. The *simplicity* of it has enabled me to put over a great deal of instruction, while enabling the players to master the fundamentals in the shortest time possible.



Diag. 1, Offensive numbering.

Our numbering system consists of two zones and seven numbered offensive men (**Diag. 1**). Everything hitting at the strong-side flank outside of our offensive end is the 1-zone. Our strong-side end is our No. 2 man; our strong-side tackle is No. 3; our outside guard, No. 4; inside guard, No. 5; center, No. 6; the short-side tackle, No. 7; short-side end, No. 8; and everything outside of the short-side end is the 9-zone.



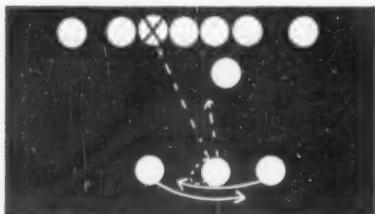
Diag. 2, Left formation numbering.

I don't like to call these line positions "right" or "left." By referring to them as either *short side* or *strong side*, we can shift into a left formation and always have the same offensive alignment. In other words, our strong-side end, who

An excerpt from Biggie Moon's superb book, "Michigan State Multiple Offense," published by Prentice-Hall, Inc.

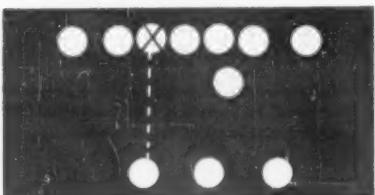
g for a Multiple Offense

On the 20 to 30 series, the ball goes to the fullback. He always spins toward the tailback and will fake or give to the tail or the wingback (**Diag. 6**).

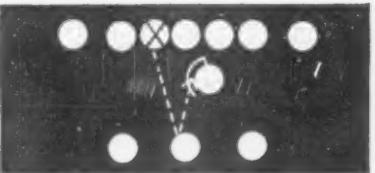


Diag. 6, the 20 to 30 Series.

For example, on a "21" or "22" play, he would give to the tailback; on the "23," "24," and "25" play he would fake to the tailback, sometimes fake to the wingback, and keep on a complete spinner hitting into the line. On a "27," "28," and "29" he would fake to the tailback, give to the wingback, and continue his fake into the line.



Diag. 7, the 30 to 40 Series.



Diag. 8, the 40 to 50 Series.

On the 30 to 40 series (**Diag. 7**), the ball goes directly to the tailback and he hits direct anywhere along the line. On the 40 to 50 (**Diag. 8**),

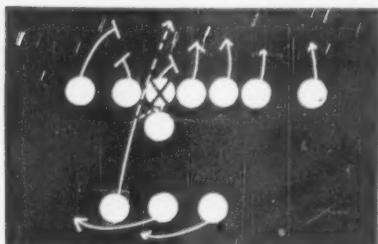
which is the buck lateral series, the ball goes to the fullback and he will fake or give the ball to the quarterback back.

For example, on a "41" play the fullback will carry the ball in and give to the quarterback, who in turn will lateral to the tailback. On a "44" play the fullback will carry the ball in and fake the ball to the quarterback; the fullback will keep it and continue on into the line with the short-side tackle trapping out at the hole over the No. 4 man.

I mentioned before that we have two single wing formations. We can run all of our single wing plays from both of these formations and the only man affected is the wingback. In other words, if we call a "44" play, he would be in a deep position, and if we called a "144" play, he would be in an up position.

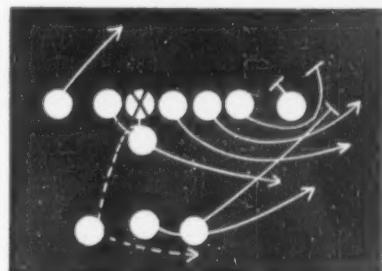
When we started running a few plays from the "T" formation, our first thought was to correlate the signals as much as possible with our single-wing numbering because we wanted to retain the basic principles involved in our signal system. We decided finally that any time the quarterback handled the ball directly from the center, we would call that play by naming the back who would eventually end up carrying the ball and also name the offensive man or zone over which he would hit.

In other words, a straight dive by the left halfback with the quar-



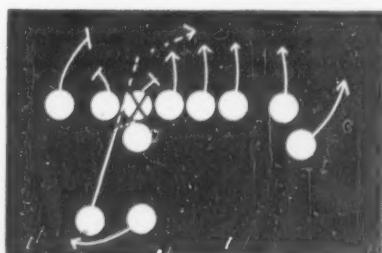
Diag. 9, left half at 7.

terback handing him the ball and having him hit over our No. 7 man, we number "left half at 7." (**Diag. 9**). When we have the quarterback handing to the left halfback on a flank play, hitting the strong-side flank, we call that "left half at 1" (**Diag. 10**).



Diag. 10, left half at 1.

To carry this thinking further, we decided that as long as we called our single wing formation with our wingback up our 100 formation, it would simplify things to call our winged "T" formation our "T" 100 formation. In other words, if a



Diag. 11, T 100, left half at 7.

quarterback wanted to dive the left halfback over our No. 7 man from the straight "T", he would simply call "left half at 7" on the starting count, which would usually be "Ready hike." If he wanted to run the same play with the right half-

(Continued on page 48)

30 TEAM DEFENSES

By CHARLIE LAW

Athletic Director, Suffolk University; Assistant, Harvard University

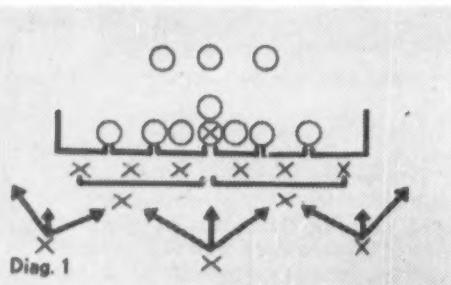
WHEN designing a team defense, the coach should think in terms of strength at the vulnerable spots along the line, balance on both sides of the ball, protection on the outside, and coverage in the secondary. The accompanying diagrams illustrate the essential points to be considered in protecting territory. In most cases, the defense is shown against the conventional balanced T formation. Against the single wing or any other unbalanced formation, you must always shift to balance the strength.

Too many of us assume that the defense begins and ends with the line. The secondary is every bit as important. Think in terms of waves—the line, the close secondary, and the deep secondary. Just as we carefully deploy our linemen to protect the entire line of scrimmage, so must we carefully position our secondary. A secondary player carelessly placed two yards out of position can prove costly.

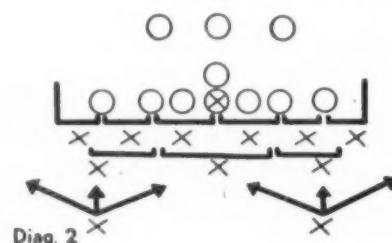
Though this article doesn't embody pass defense—a complete phase of football by itself—we must not overlook its importance when designing the various types of defensive patterns.

DIAGS. 1-16 illustrate the proper spacing for defensive alignments against various offensive set-ups, while DIAGS. 17-30 illustrate a few varied defenses with shifts, slants, and loops. Slanting and looping defenses, when properly executed, can cause a great deal of confusion to the offensive assignments. It's usually advisable to direct them to the more open side of the field.

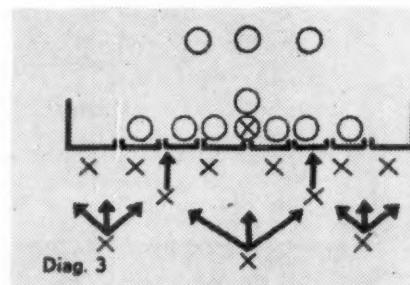
The most important fact to be remembered is to make certain that the holes left uncovered by the slant or loop are protected by a backer-up filling in. This, in turn, will necessitate an adjustment by the rest of the secondary (to protect the area vacated by the backer-up).



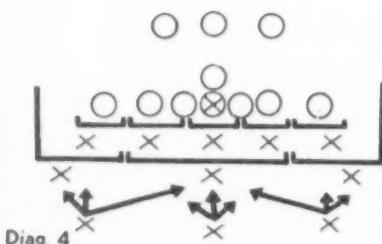
Spacing for normal 6-2-3, one of most basic of defenses from which numerous variations may develop.



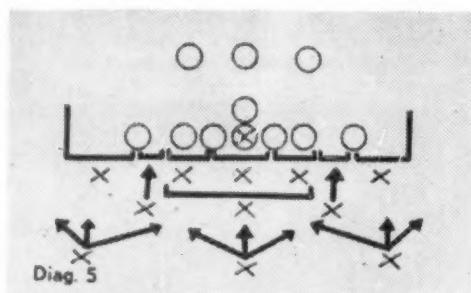
Spacing for normal 6-3-2, offering tremendous strength near scrimmage line with a potential 9-man line.



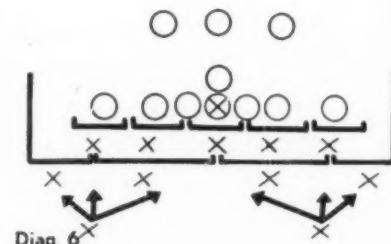
A wide-spreading 6 that develops into an 8 by having the two backer-ups jamming inside the tackles positions.



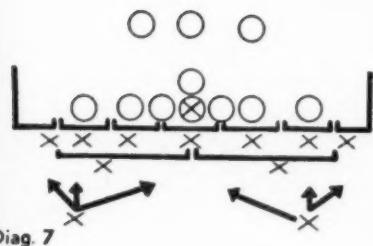
Normal 5-3-3 with outside backers having outside responsibility; the defense actually ends up as a 7.



A 5 ending as a tight 7 by having backers jamming in for off-tackle plays, checking the ends for passes.

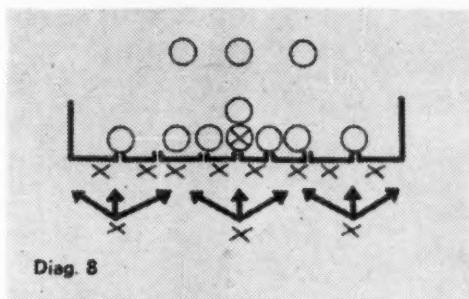


A normal 5-4, strong against runs, with interior backers fading soon as they recognize pass situation.



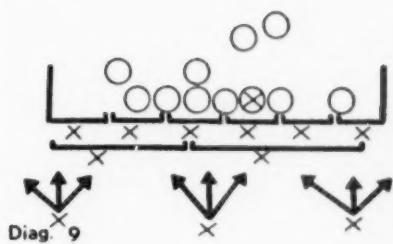
Diag. 7

Normal 7-2 usually used on short yardage or against poor passing attack; 2-2 box or 1-2-1 secondary.



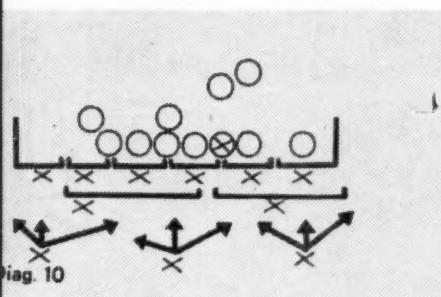
Diag. 8

Goal-line 8-3, a packed defense all along line with fullback filling in; powerful against short yardage.



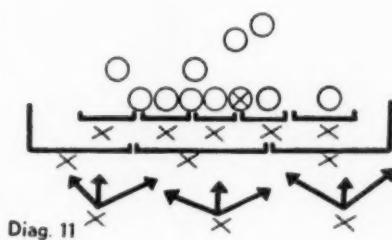
Diag. 9

Normal 6-2 against single wing, fb splitting le and lt, and c splitting rg and rt to meet wingback strength.



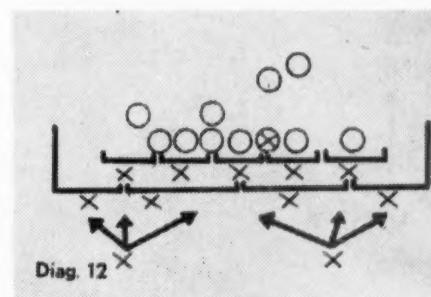
Diag. 10

Overshifted 6-2, line shifting one space to strength; fb sets opposite wingback, c splits weakside t and e.



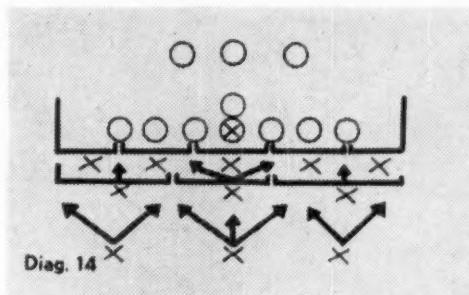
Diag. 11

Normal 5-3 against single wing; fb takes outside, middleman splits t and g just about opposite the qb.



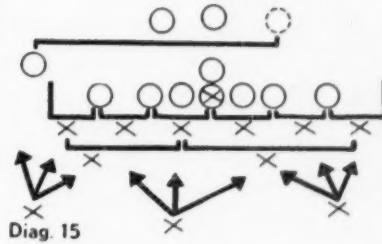
Diag. 12

Normal 5-4 defense against single wing, extremely effective against single wing power tackle plays.



Diag. 13

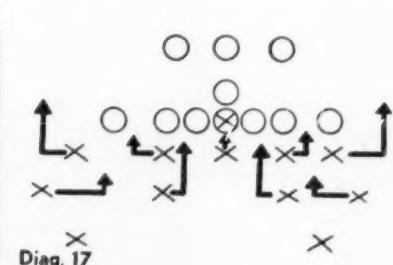
Normal 7-2 against s.w.; backers shift to strength, re can wait to help against weakside flat passes.



Diag. 14

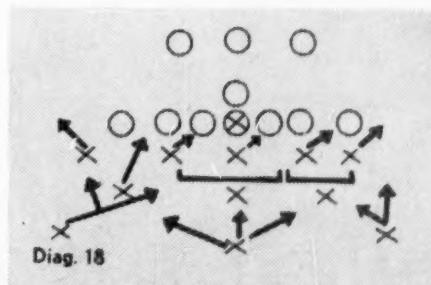
Normal 5-3-3 vs. split or spread. Three backers must be alert to jam and fill in at the point of attack.

A 6-2 against a flanker; hb sets up about 5 yds. inside man, weak-side backer moves space toward strength.



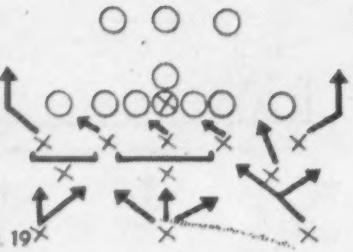
Diag. 15

Normal 6-2 (modified 5-3) against double flankers; re moves out and drops off to take second flanker.

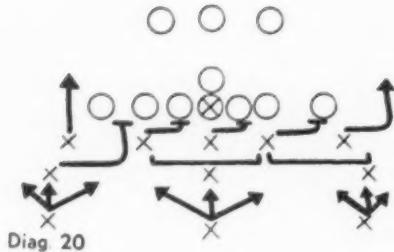


Diag. 16

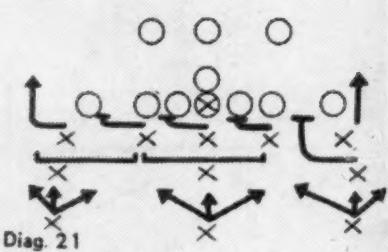
A normal 5-3 slant right; fb jams into hole and the defense then becomes a slanting 6 to the right.



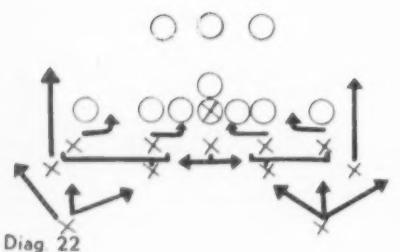
Diag. 19
A normal 5-3 slant left, with the c jamming into hole and the defense becoming a slanting 6 to the left.



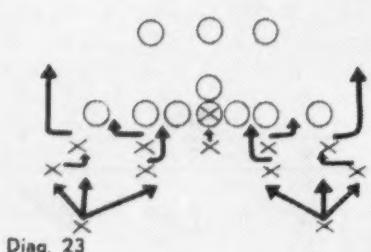
Diag. 20
A normal 5-3 loop right; works the same as the slant but with players using a loop instead of a slant.



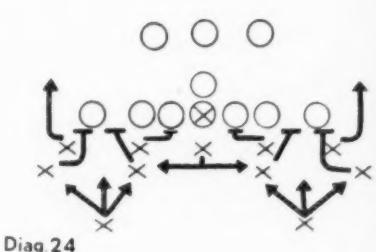
Diag. 21
A normal 5-3 loop left; executed in same manner as in preceding diagram only with the loop to the left.



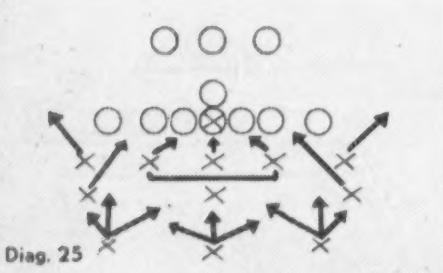
Diag. 22
Normal 5-4 with inside loop developing into 6-3; middle lineman drops back to normal middle backer spot.



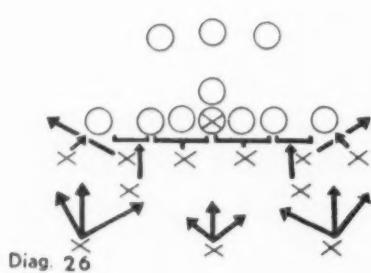
Diag. 23
Normal 5-4 outside loop developing into 7-2; interior backers jam into holes left vacant by the loopers.



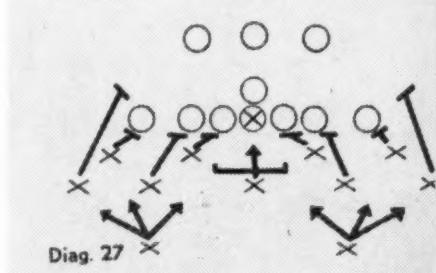
Diag. 24
Normal 5-4 variation developing into an 8 used only on short yardage downs when pass is not expected.



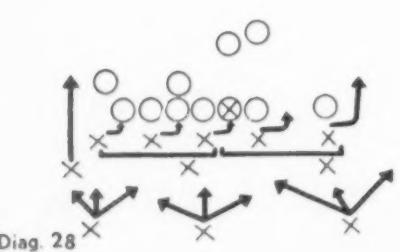
Diag. 25
5-3 center slant to 7; wide backers slant and jam into t's outside shoulder, being alert for cutbacks.



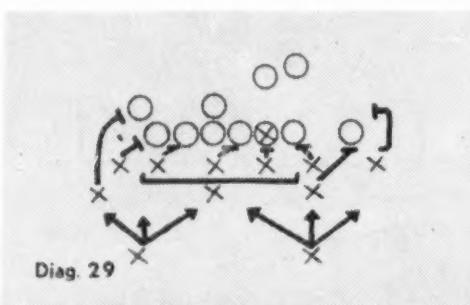
Diag. 26
6-2 tackle-end variation developing into 8-3; backers jam into areas left by t's driving back of e's.



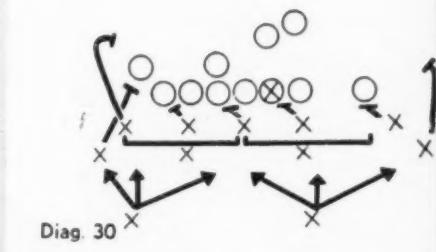
Diag. 27
4-5 slant to middle into an 8 or 9; middle backer must be ready to jam center; e's must be driven back.



Diag. 28
A 5-3 loop right against a single wing, with fb coming up on outside, defense becoming a 6-2.



Diag. 29
A 6-3 center slant against a single wing, which develops into an 8 after the outside backers drive in.

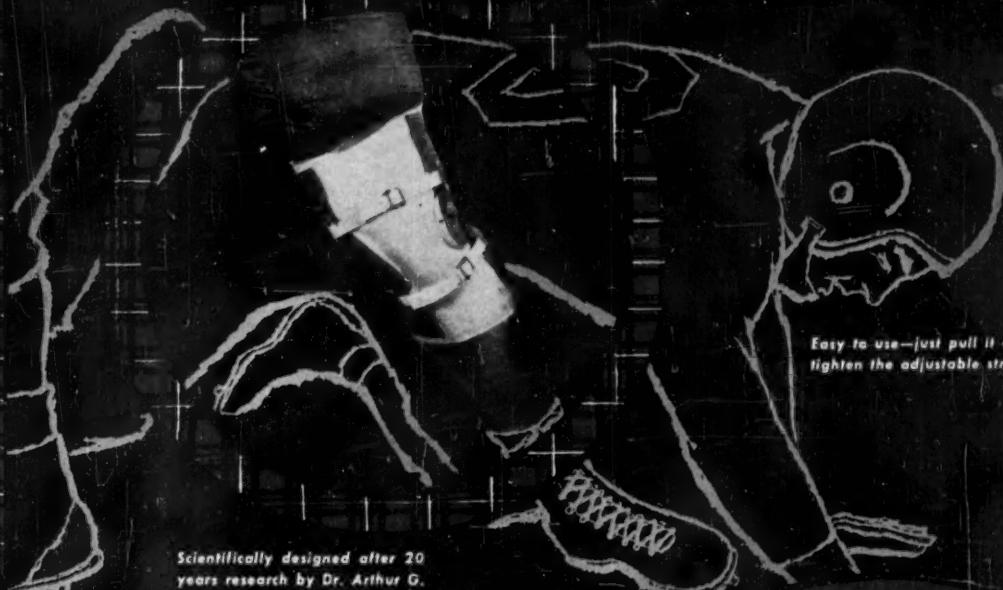


Diag. 30
A 5-4 slant left against a single wing with the outside backers packing and interior backers holding.

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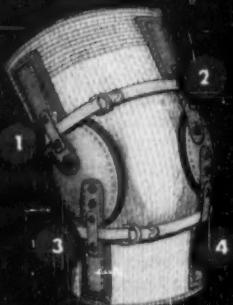


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A Visual Aid for Tennis

THANKS to the pioneering of such magazines as *Scholastic Coach*, instructors can now find many excellent motion picture sequences in various publications, which, with a little imagination, can be organized into an effective teaching device.

Under certain conditions, however, pictures may prove delusive. Hence, to obtain the maximum benefits from their use, it's important to provide some type of supplemental analysis and interpretation. This point is stressed in the adage, "Pictures can never replace the skillful teacher, but they enable him to do a better job of teaching."

Progressive action sequences can bring into focus the details of the

By **GEORGE STROMGREN**

Coach, U. of California at Davis

ultimate in performance, and they can best contribute to the learning process where the student understands the basic principles involved in the action. In studying these pictures, beginners often make the mistake of trying to copy a certain style or form, instead of learning the basic principles and then developing a style of their own.

In the California Aggie tennis instruction program, various progressive action series of each tennis stroke are posted on a separate bulletin board for the purpose of making a comparative stroke anal-

ysis. These bulletin boards, or posters, consist of large, white (28" x 22") cardboard sheets upon which are posted, in horizontal rows about two inches apart, several selected series of action pictures of outstanding players.

This arrangement makes it possible to point out the similarity of basic principles at certain phases of each stroke. This is done by comparing key positions in each series. A colored arrow is used to underscore the corresponding key pictures of each position.

The stroke positions studied are as follows: (1) the ready or "alert" position, (2) the approach to the hitting position, (3) the ready to hit position, (4) the hit position and, (5) the follow through.

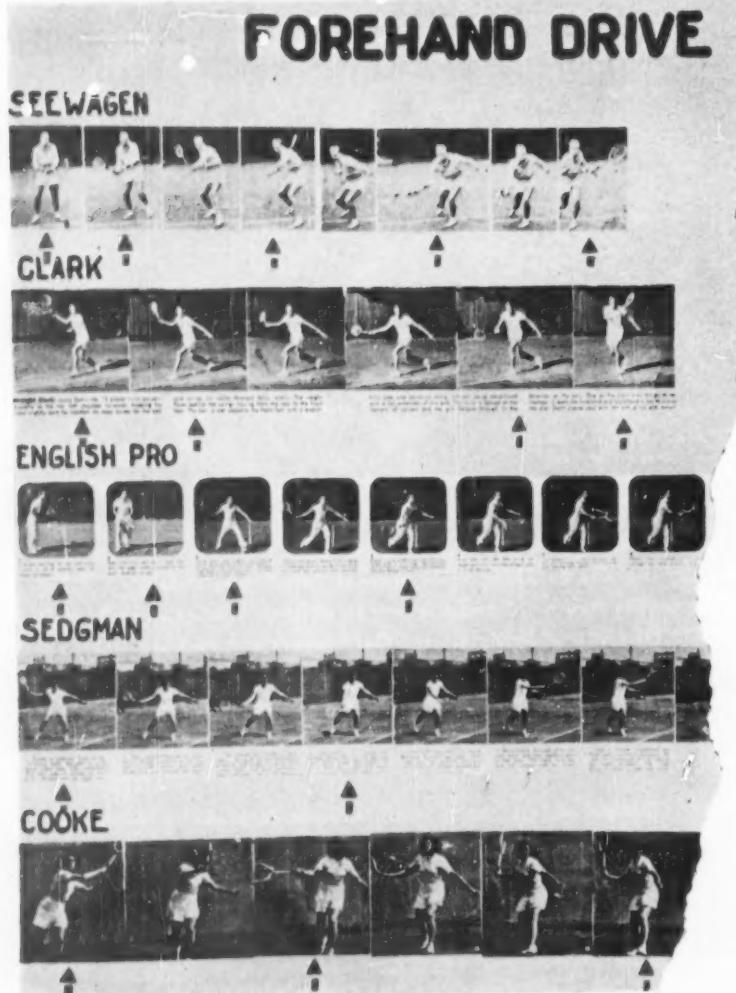
In each of these positions, an attempt is made to determine the factors necessary for the correct execution of the stroke. For example, by comparing key pictures of the hit position in the forehand drive, it's possible to pin-point a general conformity to the following basic principles:

1. The body is sideways (perpendicular) to the net.
2. The ball is met in the center of the racket about waist high and approximately opposite the front foot.
3. The head and eyes are focused on the ball.
4. The arm and elbow are well away from the body.
5. The weight is being shifted from the back to the front foot.

A deviation from any one of these factors will likely cause an error. Therefore, strict adherence to certain basic principles is necessary to develop a consistent and accurate stroke.

While all the strokes are studied in this manner, the students are reminded to think of the stroke as a continuous and sweeping type of whole action, and that the division of the stroke into component parts is merely for instructional purposes. In practice, the students are urged to swing easily and try to feel the rhythm of the whole movement.

(Concluded on page 37)



Progressive action sequences of the forehand drive laid out in the form of a 22" x 28" poster; arrows indicate the respective key positions.



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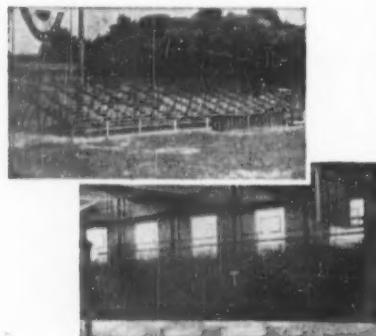
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Building DESIRE in Football

By MARV LEVY

Backfield Coach, Coe College

NOBODY will gainsay the importance of intensive drilling in any football teaching program. But drill *per se* isn't always sufficient. It is a laborious, tedious process that players can get to hate—unless they're properly incentivized, put into the proper frame of mind.

You must remember that football is a game of desire. The boy is constantly giving and taking a lot of body punishment, and he must have the mind set for it. In fact, certain aspects of the game depend more upon desire than form. And it will pay the coach to psychologically stress this factor in his drills. Indeed, the proper psychological stress can often prove more valuable than the drill itself.

Tackling offers a prime example. Nearly every coach experiences difficulty teaching this bedrock fundamental. Running a tackling drill at full speed invariably raises the casualty rate. And when the tempo is decelerated, the basic elements of timing and shock fail to simulate game conditions and thus avail the athlete little.

Then, again, few boys exhibit the same reckless abandon that they do in games. You can drill all you want on form, but when it really comes to levelling a high-stepping fullback, the boy who does it is the one who really WANTS to do it.

"All right," you might be saying at this juncture, "desire is the prime factor in tackling. Just how do you go about developing it?"

Our method is neither new nor original. But it works! First of all, we take advantage of every opportunity to point up, vocally, the importance of rugged, crisp tackling.

A rule we repeatedly stress is that no player be more than five yards from the ball-carrier when he's tackled. Thus, if the carrier does manage to shake loose from an initial tackler, we always have two,

three, four, or more helpers rushing to the scene to put a definite end to his aspirations.

Our movies, viewed by the entire squad, show us which boys are shirking this responsibility. Nobody on the field is a watcher. One of the many slogans we use in this respect is: "All spectators are in the stands or on the bench!"

We feel that well-deserved encouragement is the key to nurturing the element of desire. We publicize a good tackle in every possible way. If a game movie shows a good tackle, we run the shot over and over again, stressing the boy's accomplishment with pyramiding enthusiasm.

This same method can, of course, be applied to other accomplishments—an effective block, a clever fake, a hard-driving backfield maneuver, etc.

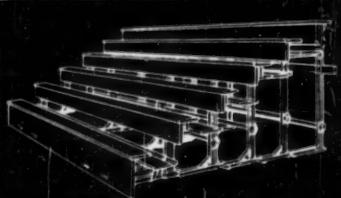
FOOTBALL AT ITS BEST

A little earlier I mentioned the use of slogans in spurring the boys. Our favorite is a simple two-word expression—"That's football!" Used sparingly and only when the situation warrants, this expression is the supreme accolade that can be paid to the player. And every boy works like a beaver to earn it.

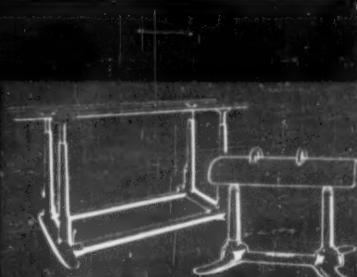
When a boy really lowers the boom on a block or tackle; when a boy through magnificent effort, breaks through to block a kick; when a halfback lowers his head and explodes into a mass of tacklers; when a lineman strains to his utmost to get downfield ahead of our backs for a key block—we shout, we cry, we bellow, "That's football!"

Every coach joins in the accolade, and so do many of the players. And you ought to see the hero swell with pride!

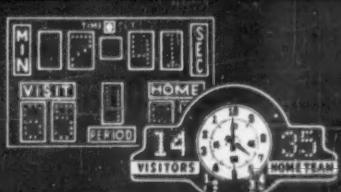
The real mark of a football team is its downfield blocking. This is one of the easiest assignments to



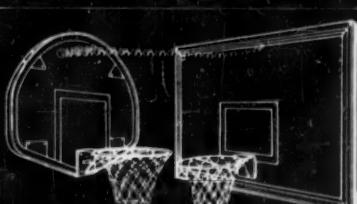
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shirk, particularly early in the season when the team effort is being directed toward all the many other details of play execution.

Many boys tend to regard a downfield assignment as a breather and will often jog half-heartedly into the secondary while everyone's attention is focused on the key blockers along the line of scrimmage.

Once again, game movies prove extremely helpful in pointing up these errant ways. While we certainly encourage downfield blocking efforts, we've almost come to expect that in the first game or two it will be a bit shoddy. That's the time, we feel, for psychological stress.

As the game movies are shown to the squad on Monday, the coaches make profuse comment on the quality of our downfield blocking. Before the movies are finished, we've proclaimed the coming practice week to be "Downfield Blocking Week."

DOWNFIELD BLOCKING

Though our drills aren't changed perceptibly, our concentration seems to be on downfield blocking. On every play, one or more of the coaches will watch the downfield assignments. The same enthusiasm accorded the efforts in tackling will be applied here.

It's amazing how the tempo of play will pick up and how much more spirited our squad will become after one or two of these downfield blocks have been thrown at the right time!

We form a Downfield Blockers Club to which admission is gained only when a sample of one's work is offered and approved. It takes real effort and determination for a lineman to sprint downfield quickly enough to get ahead of a fleet-footed back. Yet, after one or two successful attempts, many of our linemen feel that an entirely new avenue has been opened to him.

There's no greater thrill for a boy who loves contact than to drive full tilt into his opponent. Our linemen get to do it not only in anonymous melees at the line of scrimmage but in the open field where the merit of their work is easily observed by the spectators.

Once our boys have experienced the thrill and gratification of downfield blocking, we've found our ball-carriers going down the sidelines with convoys of blockers. "That's football!" at its best.

There are many other good coaching devices which might be used to get the most out of the boys. Quite often the awarding of a nominal prize will have a fine morale-

boosting effect. At Coe, we offer a malted milk to anyone blocking an opponent's kick. It's interesting to see what pride the boys take in gaining this reward.

We also find that grading our movies serves as a tremendous incentive for the boys. (Unfortunately, our system of grading is too elaborate to discuss in an article of this nature.) Our players are very proud of any improvement in grade from game to game.

There's one other course of action which we employ in having our players "do it right." We try to prove to them that mechanically they can perform, through desire and concentration, as well as any All-American.

We stress that there may be players on the big college teams who are stronger, bigger, faster, and more talented, but that there's no reason why anyone in the nation should perform better mechanically than we do.

Our boys begin to compare, through movies, their own movements with those of the nation's best. They get a big kick out of finding that, indeed, there's a tremendous margin of error even in the work of All-Americans. They begin to set up for themselves a sort of private duel with the All-American in the performance of fundamental movements.

CRITICAL ATTITUDE

We like to compare our boys' strong points with those of the big college boys. In this fashion, our boys begin to develop a healthfully critical attitude toward the mechanics of play.

Many coaches have been criticized in the past for not devoting sufficient attention to fundamental drill. It's also true, however, that many coaches in their efforts to develop fundamental play have neglected the human element, have taken the fun and enthusiasm from football, have failed to nurture a football player's greatest asset—DESIRE!!

By properly stressing the psychological approach, a coach may add that little extra something that builds winners.

As an undergraduate at Coe College (Cedar Rapids, Iowa), Marv Levy won a total of eight varsity letters in football, basketball, and track. After receiving his M.A. at Harvard, he coached football and basketball at The St. Louis Country Day School, then returned to his alma mater as backfield coach in football, freshman basketball coach, and varsity track coach.

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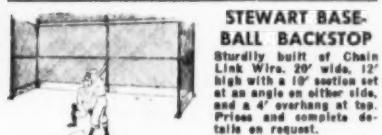
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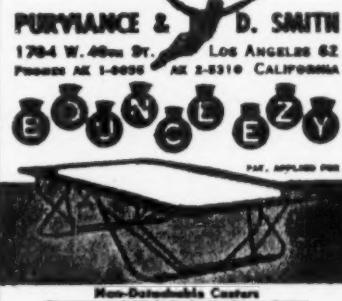
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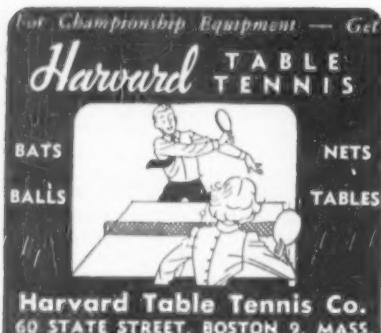
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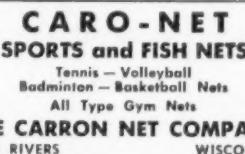
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AN INDEX TO

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VOL. 23, 1953-54

BADMINTON

Davidson, K. R. and Gustavson, L. R.: *Badminton Stroke Production*, Feb., p. 22.

BASEBALL

Bedenk, Joe: *Offensive Baseball Plays*, Feb., pp. 10-11.

Chachis, Chris G.: *Trying Out the Little and Bigger Leaguers*, Mar., p. 26.

Lai, Buck: *The Battling Stance*, Mar., p. 7.

Lyons, Eddie: *The Four Phases of Control*, Apr., p. 22.

Mallory, Jim: *Basic Cut-Off Plays*, Apr., p. 8.

Mallette, Mal: *Checking Players' Weaknesses*, Apr., p. 26.

Panciera, Larry and Ward, Stan: *Sacrifice Bunting*, Apr., p. 7.

Porter, H. V.: *Schoolboy Baseball*, 1954, Mar., p. 22.

Porter, H. V.: *Schoolboy Baseball*, 1954, Apr., p. 9.

Wren, Robert M.: *Doubling Them Up*, Apr., pp. 10-11.

Roy Campanella and Enos Slaughter (Battting Sequences), Mar., pp. 8-9.

BASKETBALL

Bee, Clair: *Freezing the Ball*, Nov., p. 9.

Craig, Richard: *Swap One Point for Two*, Dec., p. 7.

Gleason, Pat: *28 Play Problems*, Nov., pp. 10-11.

Greer, Hugh and Ward, Stan: *Controlling the Defensive Board*, Oct., p. 22.

Henderson, George L.: *The Whiz Kids' Inside Screen Attack*, Oct., p. 14.

Hickey, Eddie: *St. Louis' Pre-Game Warm-Up Drill*, Oct., pp. 10-13.

Lindenburg, Franklin A.: *Animated Shooting Drills*, Dec., p. 14.

McGuire, Frank: *North Carolina's Weave, Pivot and Post*, Dec., p. 10.

McWilliams, Jay: *A Four-Man Weave*, Oct., p. 7; *Controlled Fast Break*, Nov., p. 16.

Porter, H. V.: *1954 Rules*, Nov., p. 18.

Ramsay, Jack: *Mix Your Defenses*, Dec., p. 20.

Rawlinson, Kenneth: *Training and Conditioning for Basketball*, Oct., p. 30.

Stevenson, Chuck: *Gauging Individual Performance*, Oct., p. 34.

Thompson, Ronald B.: *Simplified Scouting*, Nov., p. 24.

Watts, Stan: *B. Y. U's Combination Set-Free Lance Attack*, Nov., p. 7.

Stunts Off the Pivot (Demonstrated by John Azary), Nov., p. 8.

Cousy Shooting and Stunting, Dec., pp. 8-9, 12-13.

Rules Changes for 1954-55, Apr., p. 55.

FACILITIES AND EQUIPMENT

Cornish, Geoffrey S.: *Better Turf for Athletic Fields*, Jan., p. 54.

Barkdol, O. R.: *A Fieldhouse with a Rubber Track*, Jan., p. 13.

Dagwell, C. P.: *Lighting the Way to \$*, Jan., p. 7.

Duchaine, William J.: *Laying Out the Playground*, Jan., p. 16.

Fait, Hollis: *A 40-Acre Playfield*, Jan., p. 36.

Fuoss, Donald E.: *Your Own 7-Man Charging Sled*, Jan., p. 11.

Hainfeld, Harold: *Filming Football in Slow Motion*, Jan., p. 24.

Jorgensen, N. M.: *A Small College Phys Ed Building*, Jan., p. 8.

King, Keith V.: *Whirlpool for \$62*, Jan., p. 52.

Laurenson, Ed J.: *Call for Rubber*, Jan., p. 20.

Loken, Newt: *The Abbreviated Tramp*, Jan., p. 22.

McConnell, Mickey: *Baseball Practice Area*, Jan., p. 32.

Shepard, G. E. and Jamerson, R. E.: *Designing the Football and Baseball Fields*, Jan., p. 40.

Spahn, Ronald A.: *The Steel-Frame Gym*, Jan., p. 12.

Right in the Teeth, Jan., p. 30.

FOOTBALL

Anderson, Clary: *Run or Throw*, May, p. 7.

Bartlett, Tom: *Picking the Most Valuable Player*, Oct., p. 40.

Engle, Rip: *Penn State's Wing T*, Sept., p. 7.

Golden, Johnnie, *Sequence Your Plays*, Sept., p. 12.

Falivene, Carl: *Simplified Single Wing*, Sept., p. 40.

Fenton, Arnold A.: *Surprise and On-Target Kicking Weapons*, Oct., p. 18.

Fetter, Gene F.: *Offensive Window Dressing*, Sept., p. 48.

Fobert, Rudolph J.: *Double-L Shell Defense*, May, p. 10.

Grimm, S. Ray: *High School Football Camp*, May, pp. 34-35.

Klein, Chuck: *Defending the Split T Option Play*, Sept., p. 20.

Law, Charlie: *Detailed Defensive Planning*, May, p. 14; June, pp. 12-14.

Levy, Marv: *Building Desire*, June, p. 18.

Mont, Tommy: *Split T Quarterbacking*, Sept., p. 8.

Munn, Biggie: *Simplified Numbering for Multiple Offense*, June, p. 10.

Ostro, Hank: *Organization of Practice*, June, p. 46.

Perry, James A.: *Practical Football Terminology*, May, p. 11.

Porter, H. V.: *H. S. Rules Changes for 1954*, Mar., p. 32.

Steel, Arch: *De Ll : Linebacking*, May, p. 8.

Schwartzwalder, Floyd B.: *Passing from Unbalanced Winged T*, Sept., p. 32.

Teague, Eddie: *Defense in the Secondary*, Oct., p. 8; *Punting Skills and Drills*, May, p. 24.

Van Deren, Frank: *Beating the T with a Crashing End*, June, p. 7.

Major Differences in H. S. College, and Pro Rules, Sept., p. 70.

A Code of Ethics for Coaches, Oct., p. 48.

1953 All-American H. S. Squad, Feb., pp. 42-43.

State H. S. Champions, 1953, Mar., pp. 58-59.

LACROSSE

Dubick, Harry: *Lacrosse as a School Sport*, May, p. 18.

PHYSICAL ED-COACHING

Conklin, Eugene A.: *Coaching the World Over*, Apr., p. 30.

Fessenden, Doug and Seth: "Unaccustomed As I Am . . .", Mar., p. 30.

Healey, William A.: *The Coach's Teaching Load*, Oct., p. 62.

Jackson, C. O.: *Evaluate Your Physical Education Program*, Nov., p. 36.

Keller, Paul R.: *Small Community Summer Playground*, May, p. 42.

Newland, Bob: *The High School Budget*, Sept., p. 52.

Stagg, George F.: *Indoor Olympics for Gym Classes*, Feb., p. 28.

Good Sports Are Made, Oct., p. 16.

Pros and Cons of Athletic Insurance, Jan., p. 28.

RIFLERY

Farmer, Patricia: *Girls Behind the Guns*, Jan., p. 62.

SOCER

Smith, Stanley E.: *Feinting in Soccer*, Sept., p. 26.

TENNIS

Leighton, Jim: *Hitting-Area Approach in Tennis Teaching*, Feb., p. 7; *Making of a Champion, Part 1*, Mar., p. 16; *Part 2*, Apr., p. 14.

Stromgren, George: *A Visual Teaching Aid*, June, p. 16.

Talbert, Billy: *Stroking by Rosewall*, May, pp. 12-13.

At Your Service (Lew Hoad and Ken Rosewall Sequences), Apr., pp. 12-13.

TRACK AND FIELD

Canham, Don: *Shot-Putting Horizons*, Feb., p. 9; *High Hurdlers Are Made*, Mar., pp. 10-11.

Carolan, Pat: *Staging a Dual Cross-Country Meet*, Nov., p. 28.

Doherty, Ken: *Mechanics of Sprint Starting*, Feb., p. 12; *Broad Jump Essentials*, Mar., pp. 12-13.

Dolph, Jack: *How Far Is Too Far for the Schoolboy Runner?*, Apr., p. 28.

Duff, Lloyd T.: *Hurdling: High and Low*, Apr., p. 18.

O'Connor, W. Harold: *A Year-Round Running Schedule*, Feb., p. 18.

Warner, Jack: *X-Country Training and Techniques*, Sept., p. 14.

Zoellner, Milton E.: *Check List for Large Meets*, Mar., p. 20.

1953 All-American H. S. Team, Sept., p. 74.

TRAINING

Doller, Joseph: *If the Shoe Fits*, Oct., p. 36.

Upjohn, Shea, Stare, and Little: *Feeding the Athlete*, Sept., p. 36.

Food and Fitness: *Food and Weight*, Nov., p. 42; *The Pre-Game Meal*, Feb., p. 34; *Balanced Meals*, Apr., p. 32.

TUMBLING

Burns, Ted: *Tumbling Illustrated: Part 1, Rolls and Dives*, Oct., pp. 54-56; *Part 2, The Arch Springs*, Nov., p. 12; *Part 3, Handsprings and Somersaults*, Dec., p. 28.

WRESTLING

Dubick, Harry: *Promote Intramural Wrestling*, Oct., p. 26.

Macias, R. G.: *Wizzer Wrestling*, Nov., p. 20.

Tennis Visual Aid

(Continued from page 16)

This brings up the question: "If players apply the same basic principles of stroking, what gives a player a certain individual style or form?"

This is an interesting point and can be answered by discussing the factors that determine individual style. For example, in re-examining the key pictures in the hit position of the forehand drive, the following individual variations are noted: (1) the length of stride, (2) the amount of leg and body crouch, (3) the forward tipping of the upper part of the body, and (4) the alignment of the feet.

The adjustment an individual makes at these junctures in order to obtain a good hitting position will tend to create a certain style or form. These variations shouldn't cause too much concern as long as they don't interfere with the application of the basic principles.

Students, therefore, are cautioned not to try to copy any one individual style, but to learn and apply the basic principles of the stroke from a position: (1) adjusted to their own needs, (2) that feels comfortable, and (3) in which they have the most confidence for the proper execution of the stroke. The knowledge and application of sound basic principles observed in good visual aids should develop a proper or satisfactory form.

Along with this discussion of fundamentals, we also present the requirements for the perfection of proper execution, namely, the devotion of a considerable amount of time for practice and study. This includes the reading of tennis books and articles, watching good players in action, and practicing against a wall or backboard.

With the availability of many outstanding progressive action pictures in athletic periodicals, such as *Scholastic Coach*, it's helpful for a physical education or athletic department to obtain an extra copy of each issue for picture clipping purposes. Thus, a valuable visual aid library can be built up by filing pictures on the various skills of each sport in a separate manila folder.

The organized use of this material in the instructional program will add another interesting teaching technique to the many every good teacher should have.

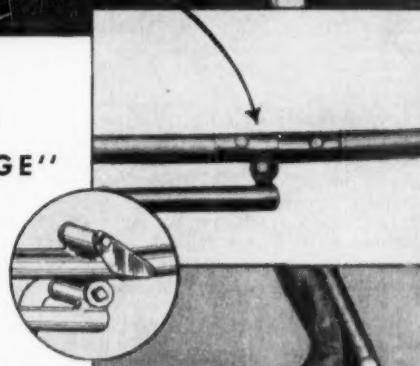
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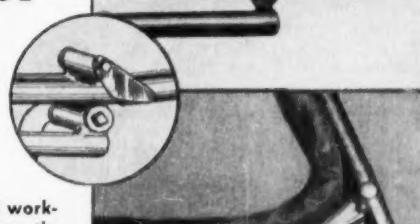
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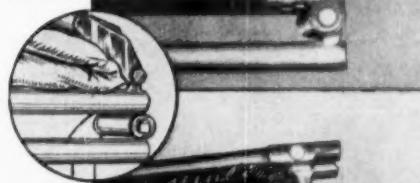
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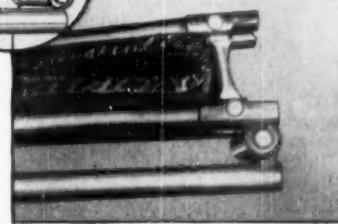
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COACHES' CORNER



Please send all contributions to this column to Scholastic Coach, Coaches' Corner Dept., 33 West 42 St., New York 36, N. Y.

THE big tackle was giving Jim Thorpe a going over. Thorpe took it good-naturedly until the opponent took a bite out of his leg. Then the great Indian tapped the fellow on his helmet:

"Look, mister," he said, "how about cutting out the kneeing and the butting and the biting? Remember, I'M supposed to be the savage."

The fellow had been standing beside the two chess champions for five hours without batting an eyelash or uttering a word. At last one of the players became annoyed.

"What do you say, mister?" he snapped. "You've been watching us for five hours. Why don't you go somewhere and play a game yourself?"

"Can't," mumbled the kibitzer. "I ain't got the patience."

Merer Beasley, perhaps the greatest tennis coach in captivity, was once nailed by an uppity young debutante, who informed him that she wanted to learn how to play tennis. To get rid of her, Beasley gave her a quick lesson.

The next day she returned with a friend. "Nice to see you," politely murmured the tennis coach. "Do you wish to learn the game?"

"Oh, no, Mr. Beasley," squeaked the upstart, "I learned yesterday. My friend here wants to learn today."

A great admirer of those great strategists, Rockne and Warner, the young football coach decided to baffle his traditional opponent. He'd fake an injury to his star quarterback, then spring him into the game at a crucial point—and walk off with victory. So he wrapped yards and yards of tape around the poor fellow's head and sat him on the bench.

And there he sat, like King Tut, for the full 60 minutes—uncalled upon. Back in the locker room, the kid un-

happily—and painfully—began ripping the sticky adhesive from his face.

"Damn it, coach," he raged, when his mouth finally emerged from the welter of cross-strips. "I had my whole family out there to see me today. And what did they see? Did they see me run with the ball? No! Did they see me pass the ball? No! Did they see me block or tackle? No! I'll tell you what they saw—STRATEGY—that's what they saw!"

Charley Gehringen, the Detroit Hall of Famer, was probably the most taciturn second baseman in history. In Chief Hogsett, his roomie, Gehringen found an ideal companion. The Chief was a blood-brother to a clam. The boys had only one falling out in all the years they roomed together. It happened over breakfast one morning when Hogsett leaned across the table and said, "Charley, please pass the salt."

Gehringen stiffened and looked coldly at his roomie. He didn't speak to him for the rest of the week. Finally, Hogsett approached him. "Charley, he said, placatingly, "why did you get mad when I asked you to pass the salt?"

"You could have pointed," snapped Gehringen.

Sportsmanship #4

BOBBY JONES was playing in the National Open. He putted out on one of the late holes and the official scorekeeper politely asked, "A four, Bobby?"

"No," said Bobby, "I took a five." Noting the look of astonishment on the scorer's face, Jones quietly explained, "The ball moved when I was getting ready to hit it." Only Bobby knew that his ball had moved. But he didn't hesitate an instant to penalize himself.

Imagine pitching two straight no-hitters and losing 'em both! It happened recently to Jim Johnston of Normandy High in St. Louis. The senior southpaw dropped the games, by identical 1-0 scores, to Clayton and Ferguson. Poor Jim's team got only two hits in each game.

If you'd like to keep informed on the latest in sports books, equipment, and other materials of interest to the coaching and physical education fields, have yourself put on the mailing list of the *SportShelf News*, a highly attractive monthly newsletter, chockful of practical up-to-the-minute coaching information, being published and distributed free of charge by SportShelf, 10 Overlook Terrace, New York 33, N. Y.

Athlete's feet are getting bigger. A generation ago anybody who asked for a size 15 or 16 sock was taken to the oddity counter. Nowadays, though, they sell 15's and 16's by the carload. Three Minneapolis Laker eagles head the foot parade: Vern Mikkelson and Clyde Lovellette, each size 16, and George Mikan, 15.

Who makes the best big league coaches? They may not necessarily be the best, but there are more former pitchers (16) coaching than any other group. Fourteen ex-catchers, 10 outfielders, and nine infielders also man the coaching boxes.

Fine basketball court in the world! The Harlem Globetrotters, who ought to know, say they found it at the U. of Vancouver in British Columbia. The hardwood maple court rests on a bed of springlass and horsehair, making a perfect cushion. It's supposed to have more bounce to the ounce than any other court.

Chuck Kettering, who coaches football at Winifred (Mont.) High, will probably think twice before giving any more grid lessons to his physical education classes. Kettering decided to illustrate a few fundamentals. He landed in a hospital with leg injuries.

Pulling the Blinds: Guess the players who bat against Dennis Blind of Purdue can't see a thing. Not when Blind's pitching. His no-hitter against Wabash was a beauty, with 19 whiffs.

After losing his pile on the Dodgers, the bookie went off his head and had to be sent to the looney bin. Since money wasn't permitted, the inmates amused themselves by wagering pebbles. Within the week, the bookie had all the pebbles in the house.

The following Monday a fellow from across the yard staggered up to the bookie carrying a huge boulder. "Oh, no," screeched the bookie. "With that big rock, you must know something!"

(Concluded on page 55)



Gymnasium Floor, Hamilton School, Spokane, Washington.
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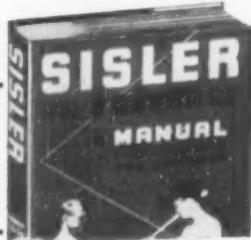
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New Books on the Sport Shelf

- ADMINISTRATION OF HIGH SCHOOL ATHLETICS (Third Edition). By Charles E. Forsythe. Pp. 462. New York: Prentice-Hall, Inc. \$6.65.

ONE of the nation's most distinguished athletic administrators, Charles E. Forsythe is wonderfully qualified to expound the ABC's of practical athletic administration—and this book graphically proves it.

Every facet of the subject is brilliantly investigated, including eligibility and contest regulations, plans for local programs, contest management, equipment, awards, finances and budgets, safety and sanitation (including benefit and protection plans), facilities (layout and maintenance), intramurals, athletics for girls, junior high school athletics, and trends in high school athletics.

In this third edition, the text of the previous volumes has been carefully brought up to date and the illustrations selected from the most recent material available. A new feature has also been added, in the way of questions for study and discussion at the end of each chapter.

- COMBATING THE CHANGING DEFENSE. By Harold H. Hoskins. Pp. 75. Illustrated—diagrams. New York: Soccer Associates. \$2.

COMPOUNDED into this 7" x 5½", 75-page book is a sound, practical, ingenious method of handling that most annoying and frustrating of defensive stunts—the ever-changing defense.

Called the "Flash Card Rule System of Blocking," it combines simplicity—since each linemen has only eight assignments to learn—with flexibility—since it enables the offense to attack the defending line in many ways.

The author, who coaches the high school and junior college at Esterville, Iowa, graphically explains his system, illustrating everything with good sharp diagrams.

- SISLER ON BASEBALL (A Manual for Players and Coaches). By George Sisler. Pp. 226. Illustrated—diagrams and drawings. New York: David McKay Co., Inc. \$3.75.

PERHAPS the greatest first baseman of all time and now one of the greatest teachers in baseball (with the Pittsburgh Pirates), George Sisler is just the fellow to be writing a how-to book on baseball.

Sisler on Baseball is a beauty of an instructional guide. The great man covers every position, telling specifically how each should be played. He also describes all the offensive and defensive team plays, and all the in-

dividual skills such as batting, bunting, base running, etc., employing 140 diagrams to illustrate the finer points.

The book is excellently written and spiced with many fascinating inside stories of the all-time greats. Every coach and player on every level of competition—from sand lot to big league—can apply this book with enormous profit.

- THE MUTUAL BASEBALL ALMANAC. Edited by Roger Kahn and Al Helfer. Pp. 254. New York: Doubleday & Co. \$3.

AN excellent compilation of big-league source material, *The Mutual Baseball Almanac* presents a varied assortment of essential information, including:

The complete official 1953 records, current (1954) American and National League schedules, detailed major league club rosters, official all-time records, Who's Who in Baseball—the life-time batting or pitching records of over 400 current big leaguers.

Also: Diagrams of all the ball parks, tips on watching the game (position by position) by famous stars, a concise history of the game, and how the big leagues are run, how a club operates.

All this and other interesting materials make this a tasty, absorbing dish.

- HOW YOU CAN PLAY LITTLE LEAGUE BASEBALL. By Whitney Martin and John McCallum. Pp. 167. Illustrated—photos and drawings. New York: Prentice-Hall, Inc. \$2.75.

WRITTEN with beautiful simplicity and larded with entertaining stories about famous players, this book tells the Little Leaguer how to play the game position by position. All the techniques are graphically and inter-

(Concluded on page 53)

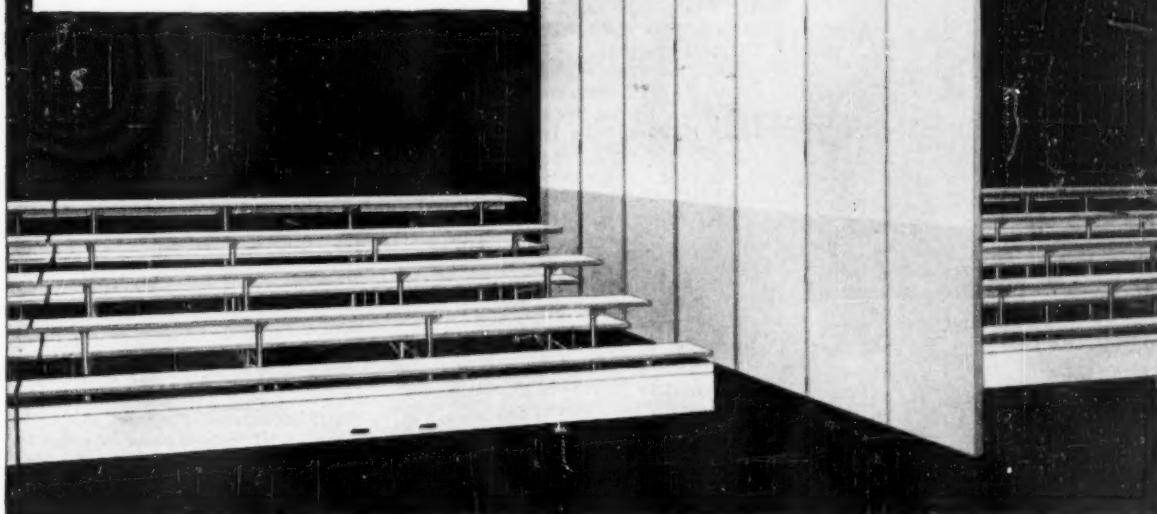
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Crashing End Beats the T

(Continued from page 9)

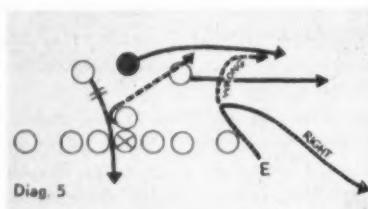
shoulder will enable the end to keep the opponent off-balance and away from his legs.

A good blocker will attempt to get position on the end, either from an inside or outside angle, so that the runner may cut upfield or circle him. The end must prevent this by keeping the blocker even with him until the runner has committed himself (Fig. 6). When this happens, he immediately leaves the blocker and goes for the ball-carrier.

To maneuver laterally, the end crouches and employs a cross-over step while facing the blocker (Fig. 6). If he runs straight toward the sideline, for example, he cannot properly ward off the interference, and will be in a poor position to recover if the ball-carrier elects to cut upfield behind him.

This maneuver is most successful when the runner is fairly close to his blocker. It might seem that the cross-over step is too slow a means of staying with a blocker who's running straight head toward the sideline. But with proper practice in drill, adequate speed can be developed.

In this case, the interferer will be attempting to block and will slow down after making initial contact. It might be mentioned that whenever the blocker is too far from the ball-carrier, the end, if in position, can disregard him and go directly for the runner.



When reacting too slow to play, end should quickly angle to sideline.

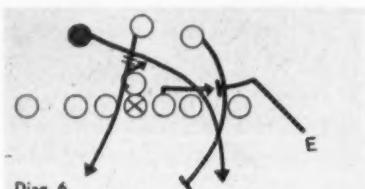
ANGLE OF PURSUIT. If the crashing end veers too late, his deep angle of charge will take him out of position and he'll find himself pursuing the runner from behind. To continue such pursuit is futile, unless the end is an exceptionally fast runner.

Upon discovering his slow reaction, he must angle to the sideline, as do the interior linemen (Diag. 5). The play will probably gain yards, unless the outside linebacker and halfback come up fast, but the end will at least be in position to stop an attempted cutback or long gain down the sideline.

OFF-TACKLE SLANT. On off-tackle slants, the ball-carrier is either the fullback or the far halfback. The

blocking of the defensive end will be assigned to a back or an on-side lineman, probably the guard. If the back leads, he'll logically attempt a driving shoulder block in trying to force the end outside.

The crashing end must meet this charge with his inside shoulder, contacting the shoulder of the blocker. His job is to stack the interference by driving through the blocker and forcing the ball-carrier off course.



Deep penetration of end causes the guard to veer deeper to meet him.

The natural tendency of the green end is to stop when he sees the play developing toward him. This tendency must be overcome by emphasizing the necessity to "block the blocker" by driving through him with a low shoulder charge. An attempt should be made to raise the blocker at the moment of contact with a forearm lift. By using the inside shoulder, the end will be in an easy position to recover to the outside in the event the ball-carrier is forced to sweep.

The deeper the end penetrates into offensive territory before making contact with the blocking back, the greater will be his forward momentum. In other words, within the 6 or 7 yards separating the defensive end and blocking back, the man who has traveled the greatest distance before contract will have the greatest force upon contact, unless a weight factor is involved.

Thus the crashing end must never slow his charge for the purpose of analyzing the play. Before he knows what's developing, he should be 3 or 4 steps beyond the line of scrimmage, picking up speed with every step.

PULLING LINEMAN. When the defensive end crashes, he has no idea from which angle he will be blocked if the play hits at his assigned territory. His only thought is to penetrate and react to the situation by reflex action.

On an off-tackle slant, the on-side guard, because of the angle, is often assigned to pull out of the line and block the defensive end.

As shown in Diag. 6, the deep penetration of the end causes the guard to veer deeper to meet him, thus losing speed and power. The end has not

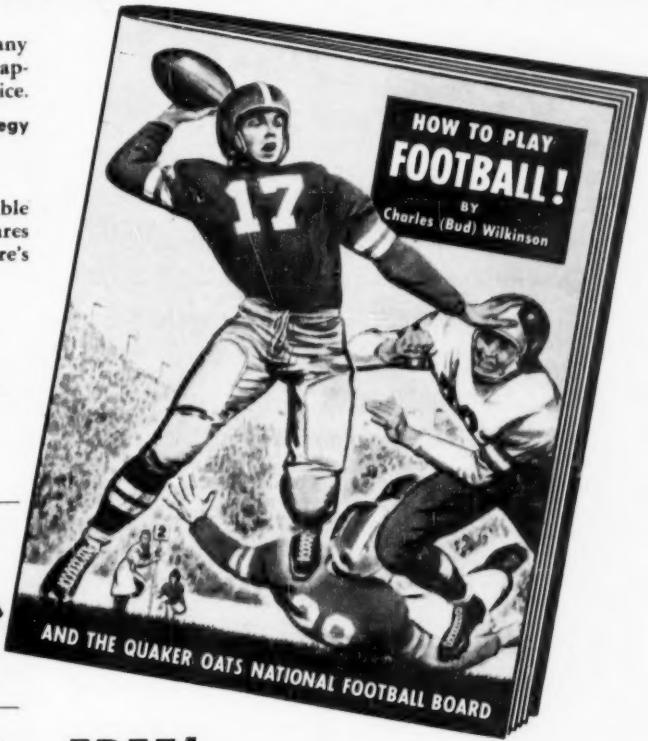
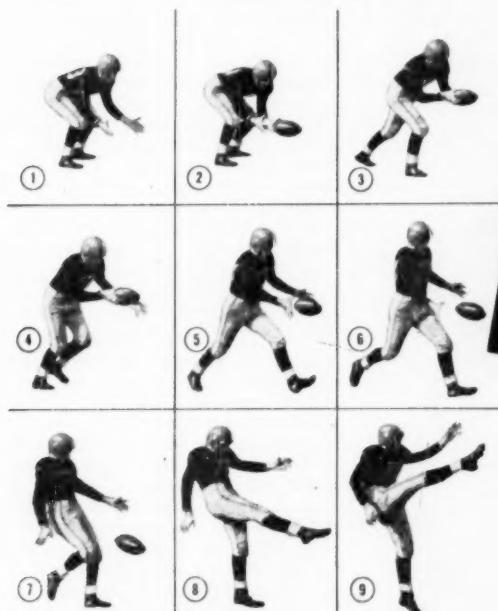
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overshot the play because of his angle of charge at the near halfback, and he can determine his action within two or three steps.

In meeting the guard, the end must halt his charge and lean into him in a crouched position (Fig. 7, end meeting guard). His inside leg and arm are bent at right angles, the elbow overlapping the knee slightly to protect his blocking surface. The outside leg is almost extended directly behind and in line with the guard's charge in order to brace against the impact of the block.

The end meets the guard shoulder to shoulder; and a split-second before contact is made, he lunges and simultaneously brings the lowered forearm up, driving it hard against the opponent's chest.

In meeting the blocker with the shoulder, coupled with the added impetus of the forearm, the end will not only halt the guard's charge but also tend to raise him (Fig. 7). The end's objective is not only to halt the blocker's charge, but to bowl him back if he can, thus forcing the runner off his designed path.

The end meets the blocker with his inside shoulder; the right end using his left shoulder and the left end his right. In meeting the inside pressure, the ball-carrier probably will be forced either to go around the end or hit inside tackle. Whenever the carrier tries to circle him, the end can easily recover to the outside after making contact with the guard.

To stop the inside attempt, however, he must use a pivot maneuver, which

involves rolling with the blocker. The end then pivots on his inside foot toward the action of the play.

One precaution should be taken, however. He should not pivot too soon. In other words, if the end rolls while the ball-carrier is still fairly deep in his backfield, the carrier may circle to the outside while the end lands up inside.

Since this maneuver involves taking the eyes off the runner momentarily, the end must pivot only when the runner reaches a spot even with the buttocks of the blocking guard. At that point, the end can be sure the ball-carrier isn't going to go to the outside.

This maneuver is of the advanced type and isn't recommended for inexperienced ends. The inside, thanks to the proximity of the interior linemen and linebackers, isn't as important for the end to protect as the outside. The end has done his job if he can force the runner from the designed hole.

Ends will often attempt to meet the guard by facing him with the feet even and playing him off with the hands. Two things can happen to the end in this case. He will either take himself out of the play by giving too much ground (thus opening the hole), or the guard will plant his shoulder into the end's mid-section and drive him to the ground.

If, on the slant, the offensive end attempts to throw either a shoulder or reverse cross-body block, the defensive end must meet this pressure with caution, as he can easily get hooked from either side. He still keys on the backs because the blocker will be in his line of vision. But the important thing is to keep the blocker away from his legs and mid-section.

If the offensive end uses a shoulder block, the defensive end meets him with a shoulder. If a reverse body block is employed, he uses his hands for protection and reacts to the play.

RUSHING THE PASSER. The first line of pass defense is the rush from the defensive linemen; and no lineman is in better position than the end to put pressure on the passer. Under orthodox signal calling, the defensive end can determine a pass by the situation (down, distance, etc.).

Regardless of the situation, however, he's in excellent position to pressure the passer by his defensive charge. Within 2 or 3 steps, it will be clear to him what's materializing. With increasing forward momentum and deep penetration, he'll be in excellent shape to ward off the blocker or bowl him into the passer.

When a back is assigned to block the end on pass protection, he'll usually use a shoulder or reverse cross-body block. The shoulder block is thrown at waist level or above. A high shoulder block is more of a screen block. The back attempts to stay in front of the end.

In the low shoulder block, the back will attempt to plant his shoulder into the mid-section of the oncoming end.

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PUBLISHER "THE FIRST AIDER"

BELOW it or not, this superb primer on crashing end play is the first article Frank Van Deren has ever written! A magnificent All-Coast end for two years at the U. of California, Frank helped coach the Golden Bear ends for one fall and two spring sessions, then moved to Santa Rosa (Cal.) Jr. College as end and line coach. Next fall Frank will take over the head coaching reins at Oakdale (Cal.) H. S.

The end must meet him with his inside shoulder in the same manner described for meeting a lead back on a slant.

To "block the blocker" should be his intention, and his forward momentum will often bowl the blocker to the ground or into the passer. The forearm lift is very useful in protecting his blocking surface and adding to the force of the jolt.

The same procedure is used against the screen block, but with the end making contact about chest high. It's more difficult to knock down a back using this type of block, but it's easier to move him backward. Also, by putting him off-balance with the initial jolt, the end can maneuver around the block and continue his rush toward the passer.

The defensive end may get "fancy" at times and try to circumvent the blocker by faking him out of position. Sometimes a good head and shoulder fake to the outside will enable him to scoot inside the blocker and smear the passer. This is a dangerous maneuver, however, and isn't recommended too often.

The end is responsible for his outside, even on a pass. If he takes to the inside often enough, the passer may decide to run, and a considerable gain will be made whenever the defenders on that side are occupied elsewhere. By jolting the blocker with his inside shoulder and coming in from the outside, the end will be able to cover any attempted sweep.

Against the reverse cross-block, the rushing end must maneuver in a way that keeps the blocker away from his legs and mid-section.

In this type of block, there's little chance of recovery and the initial attempt must be successful. The end should make contact with his forearms and hands, and immediately rid himself of the blocker. He can't afford to get tied up with the blocker too long. This will delay the pass rush. By charging in low with his arms down for protection, the end can present a very difficult target and cause the blocker to shoot too low and hit the ground.

Where the end continues his charge against the low shoulder or cross-body block, he will be tripped up. Thus, after contact with the hands, he should

converge on the passer from the outside, around the blocker.

Some pass protection involves interior lineman pulling to block the end. This type of maneuver gives the lineman a definite blocking angle, and he must be met with authority if the end intends to get to the passer. The end must not, however, stop or slow his charge. He should meet the blocker with his shoulder and forearm and drive past him with increasing forward momentum.

A properly drilled crashing end can wield a potent weapon against the T. On running plays, he can force or stop the sweeps and off-tackle slants. Against the passing game, he's the first line of defense.

To do his job properly, he must

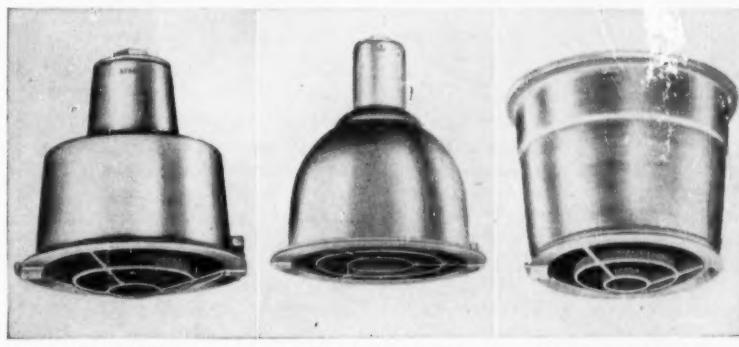
study the situation and think like an offensive quarterback. The defense will set up accordingly, enabling the end to know which back to key on if a sweep develops.

From the foregoing, it's obvious that the crashing end must possess very quick reflexes if he is to respond instantly to the pre-selected stimulus. He must be coached every day on drills involving visual stimuli.

Without doubt, the waiting type of end has a better outside position. But he'll never be aggressive—a trait which must be instilled in the crasher. Very seldom will a non-crasher pressure the passer, or be the proverbial thorn in the side of the offense.

Remember, a thorn, to be effective, must PENETRATE!

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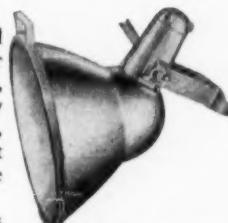
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THE DAILY PRACTICE SCHEDULE

	3:30	3:15-3:30	3:30-3:45	3:45-4	4:45-5	4:45-5	
BACKS	Conditioning Work for Entire Team	Pass Defense	Pass Defense	Ball Handling	Team Defense (Entire Squad)	Team Offense (Entire Squad)	Sprints and In (Entire Squad)
ENDS		Blocking	Defensive Maneuvers	Receiving and Cutting			
LINE		Blocking	Individual Defensive Work	Interference and Trapping			
CENTER		Blocking and Passing to Punter	Pass Defense With Backs	With Backfield			

WHEN preparing an army for combat, military leaders place great emphasis on two essentials—organization and discipline. The wise football coach will subscribe to the same principles.

By "organization," we mean the fusion of men and materials for maximum efficiency. In these days of large squads and myriad offensive and defensive techniques, this is a highly complex task. Time is of the essence, and the coach must fully utilize every one of the few hours allotted to him for pre-season training.

Clearly called for is a high order of intelligent, meticulous planning. The football program should be planned way in advance so that the ground may be broken a month or so after the season ends.

By means of announcements and posters in home rooms, corridors, li-

brary, lunch-room, etc., the student body should be continually made aware of the past season's record and how it should and could be improved. Included in the announcements should be a reminder that candidates are needed and will be called for at some future date.

If Spring practice isn't allowed and especially if there's no junior varsity, two or three meetings should be held with potential candidates. The main purpose of the meeting is to obtain names, addresses, height, weight, age, previous experience, and other pertinent data.

A meeting with the parents of the prospects is also recommended in order to expound your philosophy, training rules, team code, and need for medical insurance.

During the summer months, letters should be sent to the boys.

These should contain conditioning exercises, training rules, team rules and ideals, and the essentials for the various positions.

If spring practice is allowed, the coach can experiment in order to determine the type of offense and defense to use. This would allow him to go right to work in the fall.

However, if spring practice is not allowed, it would be wise to start with a definite pattern of play and make minor adjustments as you go along. The three to four week period prior to the first game doesn't allow too much time for experimentation.

The coach should arrive at school at least a week before the boys are to report. This is the time to check equipment, put up posters, have an understanding with the custodian, etc. You don't want to have to tell the boys, when they report, that the reconditioner didn't return the equipment. This is a mighty poor way to start the season.

All the apparel should be neatly laid out according to sizes, so that the cumbersome task can be dispatched with the least amount of confusion. Caution: Don't issue any equipment before the medical exams have been made and the parents' consent blanks received.

The coach should prepare some master plan for his first three weeks of practice and then make changes as he goes along. A good way to do this is to put down on a large chart all the essentials deemed necessary for getting the team ready. For example:

Offense

1. Blocking.
2. Ball-carrying.
3. Ball-handling, deception.
4. Passing: passer, protection, coverage, receiver.
5. Automatics (check squads).
6. Goal line offense.
7. Starting count and timing of plays.

Year-Round Organization

for High School F

By HANK OSTRO, Coach, Lafayette High School, Brooklyn, N. Y.

Defense

1. Tackling.
2. Pass defense.
3. Coverage of flankers and man in motion.
4. Goal line defense.
5. Spread defense.

Kicking Game

1. Punter — protection, coverage, return.
2. Kick-off.
3. Extra point.
4. Block kick plays.

General Principles

1. Rules.
2. Recovery and falling on loose ball.
3. Conditioning.
4. Game strategy.

The master chart should be broken down into weekly and daily schedules. This should be elastic enough to be easily changed as the situation demands.

The boys should have a definite starting and finishing time, and the drills should be changed every 15 minutes to prevent monotony and over-concentration on any one fundamental.

The boys should be kept hustling from the minute they hit the field until they leave—there should be no standing around. It's a good idea to post a copy of the daily schedule in the locker room, so that the boys can know what they're going to do before they reach the practice field. (See Chart.)

As you can quickly see, there's a lot of work to be done—far too much for one man alone. Coaches who aren't given any assistants shouldn't be afraid to enlist the aid of ex-players, interested parents, etc.

But before putting them to work, the coach should make sure to brief them on their duties. He should make it clearly understood that their main concern will be to keep

the boys working. The actual teaching job will be his responsibility alone, and he shouldn't allow any conflicting philosophies on the field.

The foregoing represents a good start toward the proper organization. However, there cannot be good organization without good discipline.

Discipline is the foundation upon which an army is built. Without it, the soldiers will go to pieces under fire.

The same principle holds true in football. Discipline is the rock upon which a team is built. What makes a team stay in there and battle until the closing whistle? Team spirit! And team spirit is discipline. It is

pride in oneself and in one's team. It is the bond of friendly confidence between coach and team.

The personal influence of the coach is of prime importance in the development of discipline. The coach should practice everything he preaches. The man who sets up a no-smoking rule and then appears on the field puffing on a big black cigar is certainly making his own rule look ridiculous.

Courage is also necessary. The coach who finds his star player breaking the rules and then doesn't have the guts to discipline him can't expect to win the respect of his team and get the determined effort

(Continued on page 54)

SUMMER LETTER TO CANDIDATES

Dear

On September 1, we open our 1954 campaign. We intend to make it a successful one. Football is a serious business to us and we have a *burning desire* to win. However, in our desire to win, we will never break the rules of good sportsmanship.

Whether you succeed in wearing the "Red" this fall will depend upon your willingness to give of yourself. You must train faithfully, you must improve everyday, and above all else, you must sacrifice all personal interests for the good of the team. A team without spirit, morale, and drive can never succeed.

Here are some pointers to remember:

1. You're playing for a coach who will dismiss you for breaking any of the training rules.

2. I will expect you to get and stay in shape.

3. Success comes through hard work, determination, and perseverance. There are no short-cuts to success.

4. We hustle from the minute we hit the locker room until we return to it. There's never any walking on the field.

5. Tardiness will not be tolerated. Every minute lost because of lateness must be made up after practice.

6. Don't be satisfied with *average* results; strive for perfection. You can become better than average by constant training.

7. You must give your best all the time. Always be able to say to yourself: "I've given my best for the team."

8. Self-discipline is a must. A boy who loses his temper and uses illegal tactics hurts our team and has no place playing football.

9. You're lucky when a member of the coaching staff criticizes your play. He's really interested in you when he does it.

10. A quitter never wins, a winner never quits.

11. You can't win on what you did yesterday. You have to be at your best every day.

12. Be a good student of football. Study it at every opportunity.

13. Work at your specialty and get really good at it.

14. Work on your fundamentals every day.

15. Don't forget your sleep and rest. Follow the training rules given you last spring.

16. Think Tall, Be Tall, Act Tall!! Be a credit to your team in the classroom, on the field, and off the field.

BE READY !!! See you September 1.

Cordially,
COACH HARRY OSTRO

Football



In fact everyone concerned with school athletic programs should be informed about the products Stewart produces for playgrounds and gymnasiums. Here are a few:

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Backstop as shown, or complete enclosures. Made in medium weight and heavyweight construction.

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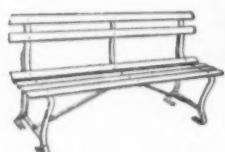


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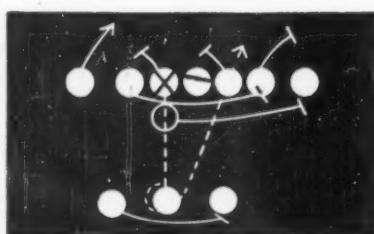
Simplified Numbering System

(Continued from page 11)

back up as a wingback, after finding out that the opposition changed their defense for this formation, he would simply say "T" 100 left half at 7," using the same starting count (Diag. 11).

When we decided to start passing the ball from our "T" and our "T" 100 formations (passing through the quarterback's legs directly to the fullback), we found that once again the simplicity of our numbering enabled us to use the same signals by simply prefacing them with the letter "T."

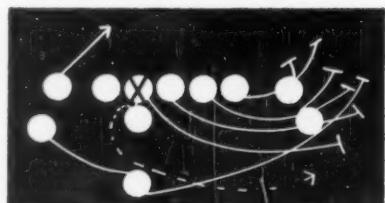
Thus, if we ran our spinner trap play from the single wing, it would be called a "24" or a "124" play, depending on the position of the wingback; the same play could be run without changing a single assignment by passing the ball through the quarterback's legs to the fullback and having him execute his spin from that position, calling it a "T" 24 play" (Diag. 12).



Diag. 12, T 24.

This method holds true for any play from our single wing that originates with the ball being passed directly to our fullback, and, as you may have gathered from our different single wing series, this constitutes the major portion of our single wing offense.

When we run from the "T" double wing, our quarterback simply names the formation, the back who will end up carrying the ball and the offensive man that he will hit over. Therefore, if we're going to buck the fullback with a hand-off from the quarterback in our "T" double wing formation, it would be called "double wing, fullback at 4," "double wing, fullback at 5," and so on, depending on the spot where we wanted our fullback to hit. If we wanted to sweep the flank with either half, we would call "double wing, left half at 1" (Diag. 13) or "double wing, right half at 9."

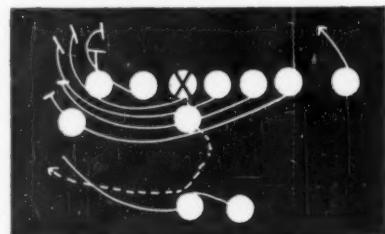


Diag. 13, T double wing, l.h. at 1.

As this signal system begins to unfold, you can now see the tremendous possibilities of hitting over each offensive man with a wide variety of ball-handling in the backfield. Many different techniques may be used while still retaining the same blocking principles at the line.

The last formation added to our offense also adapted itself very well to our signal system. When we want the left halfback to move up and be a wingback on the short side, we designate that before calling the play. This usually will have no effect on the assignments of the other ten men.

In other words, if we wanted to sweep the short side with the left halfback being used as a wingback on that side, we would call the play "left half up, right half at 9" (Diag. 14). If we wanted to dive the fullback over our 7 man from this formation, we would call it "left half up, fullback at 7."



Diag. 14, l.h. up, right half at 9.

Our huddle has been devised to enable our qb to relay the play and starting signal to the other ten men without confusion. We have our center (No. 6 man) spot the huddle six yards back and one yard to the right of the ball. He faces away from the ball toward his own goal. Directly on his left, facing the same direction, is our strong-side tackle (No. 3). Our strong-side end (No. 2) stands to the left of the No. 3 man and facing away from the ball.

To the right of our center and facing the same direction is our short-side tackle (No. 7), and standing at right

angles to him is our short-side end (No. 8). The fullback, left half, and right half take their respective positions, which face the 2, 3, 6, and 7 men approximately seven yards from the line of scrimmage.

All of the men forming the outside perimeter stand in an erect position. Our two guards (No. 4 and No. 5), stand with hands on knees in the opening directly in front of the three backfield men, and they both face the open side of the huddle.

As you can quickly see, every man is in a position where he can see the qb's lips and hear his voice distinctly.

The qb remains outside the huddle until he's made a definite choice of play. He then walks into the opening of the huddle and gives the play, starting count, and command, "Break." (See **Diag. 15.**)



Diag 15, the starting huddle.

Upon this command, the 2, 3, 6, 7, and 8 men start directly for their positions. The 4 and 5 men swing to the right of center, and the qb, full, and two halves follow the line-up in their respective pre-shift formation, which is usually an unbalanced T or a winged T.

The center puts both hands on the ball immediately, while the remaining linemen keep hands on knees and don't assume the regular three-point stance until the qb signals, "Set." If the ball is to be run from this pre-shift formation and the linemen have assumed their set position, the starting signal is "Ready hike." If a single wing play has been called, our backs and ends will shift on the command of "ready hike" to their respective single wing positions.

This shifting is done on a "1-2-3" count with each man stepping first with the foot nearer the direction he's shifting. In other words, the right half shifting from his T to a single wing position would step right on "1," step with the left foot on "2," and set both feet on "3."

We have tried to achieve the same cadence in our single wing starting count as in our shift, using 1-2-3-4 and so on, with a smooth rhythm.

Scholastic Coach is deeply beholden to Prentice-Hall, Inc. for permission to reprint this excerpt from Chapter 2 in Biggie Munn's excellent coaching text, *Michigan State Multiple Offense*, which describes the famous Spartan attack with crystal-clear clarity. Coaches may obtain the book by ordering from Prentice-Hall, Inc., 70 Fifth Avenue, New York, N. Y. Price is \$3.95.



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Spare the (Hot) Rod and Spoil the Child

By BRUCE H. BELLARD
Asst. Coach, Bowling Green U.

THE game was over, Holden High School had successfully defended its league leadership against neighboring Redford. In the automobile cruising down the darkened highway were four standouts of the Holden team.

Conversation was free and easy. The boys felt "hepped up." They were riding on the crest of an emotional peak as they continued their jubilant, noisy way home in Bob's car. Not a care in the world. Nothing to worry about until school on Monday.

Bob was driving carefully and observing most of the habits of good driving. Yet with football the topic of discussion at a time like this, this group of four average boys was easy prey for a highway accident.

Bob was just verbally rescoring Holden's first touchdown, with appropriate gestures, when it happened. The driver of a big new car failed to make a safety stop at the intersection of state routes 68 and 224.

Under normal conditions, Bob would have quickly reacted to this emergency and made the necessary adjustments. But these were not normal conditions and Bob did not make the necessary adjustments. The importance of Holden's victory faded in one sickening moment of hesitation.

The Morning Dispatch carried the following headline: "2 DIE, 2 SERIOUSLY INJURED IN RT. 68 CRASH."

Could this happen to *you*, in *your* town, to members of *your* team? Whether you're willing to acknowledge it or not, the answer must be YES. The files of the State Highway Patrol are filled with accounts of just such incidents.

Mr. Coach, let's take stock of your own situation. What are your answers to the following questions:

1. Do members of your teams own or have access to automobiles?
2. Are members of your teams good drivers?
3. Do you insist that members of your teams return home with the team or do you permit them to return with friends?
4. Do you permit members of

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OF YOUR PREMISES
SEE YOUR DOLGE SERVICE MAN

DOLGE
Westport, Connecticut

your teams to drive to contests away from home?

5. Do you know where your boys are after the game?

6. Have you ever discussed the problem of automobile accidents with your teams?

7. Do you encourage members of your teams to enroll in the driver education course offered in your school?

It seems to me that unless we can honestly, successfully, answer these questions, we are failing to meet our responsibilities to the boys and girls entrusted to our care.

It is a well-known fact that in most school systems, the coach has a great amount of influence upon the students. Parents have often been heard to remark, "My boy would do anything his coach tells him to do."

If this is true, let's take advantage of the situation and ask our boys to be good citizens on the highway as well as on the athletic field. As coaches, let's not shun our responsibilities as soon as the game is over. Let's develop and follow some sensible, workable rules for our players' automobile conduct.

DEATH AT THE WHEEL

According to AAA statistics, an automobile in the hands of an inexperienced young driver is twice as dangerous as that in the hands of an adult.

"Untrained drivers under 20 cause five times as many deaths from auto accidents as 40-to-50-year olds."

About one-fourth of the nation's high schools now give courses in driver-training. So successful have these courses been that in some communities the number of auto accidents involving teen-agers has been cut in half. First-rate teaching materials to supplement driver-trainer courses is being supplied to schools by insurance and automotive companies.

When discussing the driving problem, let's face the fact that many of our own driving practices leave much to be desired. In these cases, "charity should begin at home."

Let's give the boys a break. Bring this problem up for discussion at your next practice session or chalk talk.

Bruce H. Bellard knows whereof he speaks when he says that "coaches in the high schools are in excellent position to help alleviate the serious problem of teen-age automobile accidents." In addition to being assistant football coach at Bowling Green, he's an instructor in Driver Education.



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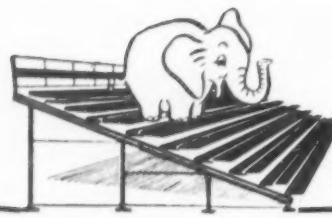


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Write for booklet "Floor Maintenance" containing detailed facts on DOLGOROCK.

DOLGE

WESTPORT, CONNECTICUT

"Here Below"

(Continued from page 5)

soared $\frac{1}{8}$ inch higher in 1938, while Walt Davis cleared 6-11 $\frac{1}{2}$ last year.

To us the conclusion is inescapable: If modern athletes excel in every sport where accurate yardsticks can be applied, you must assume that the modern athlete outshines his yesteryear counterpart right down the line.

After squeezing the last $\frac{1}{4}$ inch and .02 sec. out of our overheated typewriter, we locked shop for the day (in 9.2 sec.) and set off by stage coach to our 2½ room ranchero west of the Empire State Building. Crossing the turbulent Harlem River, we opened our evening newspaper and there, smack on the front page, was the sensational news about Roger Bannister's 4-minute mile.

Naturally, we accepted it as another nail in the coffin in which we had just laid the old-timer myth to rest. And when Parry O'Brien, just a few days later, let go with the first 60 foot put in history, we felt that our case was complete—that we could win it even in a kangaroo court presided over by the ghost of Pudge Heffelfinger.

And so athletics go marching along—improving year after year. We haven't any doubt that 20 years from now experts will be proving that the moderns (of 1974) have it all over the ancients of 1954.

It's a funny thing about records. They're born to be broken. We always felt that after the first 4-minute mile or 60-foot shot put, people would sort of lose interest in that particular event. But it hasn't worked out like that at all. Two days after Bannister reeled off his 3:59.4, track fans were speculating about who would be the first to break that record!

And that's the way it goes. One man's record is another man's goal. And so far every goal has been attainable. It makes you wonder: What is the ultimate in the high jump or pole vault or mile run? How fast is it possible for man to run? How high can he possibly vault or jump? How far can he possibly throw a 16-pound ball?

Every estimated ultimate has, so far, proved completely wrong. Maybe there's no such animal as an ultimate. Who knows, in the not too distant future, man will be pole vaulting 17 feet—with no pole yet!

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New Books

(Continued from page 40)

estingly projected, and there are valuable chapters on conditioning, caring for equipment, umpiring, and sportsmanship.

- **BASEBALL FROM BACK YARD TO BIG LEAGUE.** By George (Specs) Toporcer. Pp. 160. Illustrated—drawings. New York: Sterling Publishing Co. \$2.50.

THE famous ex-major league player and manager offers a fine primer on the game, covering the details of every position in a clear, concise, and intimate manner, drawing upon his broad background for inside stories about the greats of the game.

- **MAJOR SPORTS TECHNIQUES:** Football by Jim Moore, Baseball by Ethan Allen, Track and Field by Don Canham, Basketball by Forrest Anderson. Designed and Illustrated by Tyler Micoleau. Pp. 470. New York: A. S. Barnes and Co. \$5.

THIS is really four books in one, consisting of the four major sports books in the Barnes Illustrated Sports Library. Each of these books ordinarily sells for \$1.75 apiece. The fundamental techniques are analyzed and illustrated in excellent fashion, and the master volume represents a distant saving for the multi-sport coach and physical ed instructor.

- **BADMINTON.** By Noel Radford. Pp. 148. Illustrated—photos. New York: Pitman Publishing Corp. \$2.95.

AN AMATEUR and pro star of five countries—Canada, U. S., England, Scotland, and Ireland—the author analyzes the game in highly authoritative fashion, covering the origin and growth of badminton, the beginning game, singles, doubles, serving, deception, training, etc.

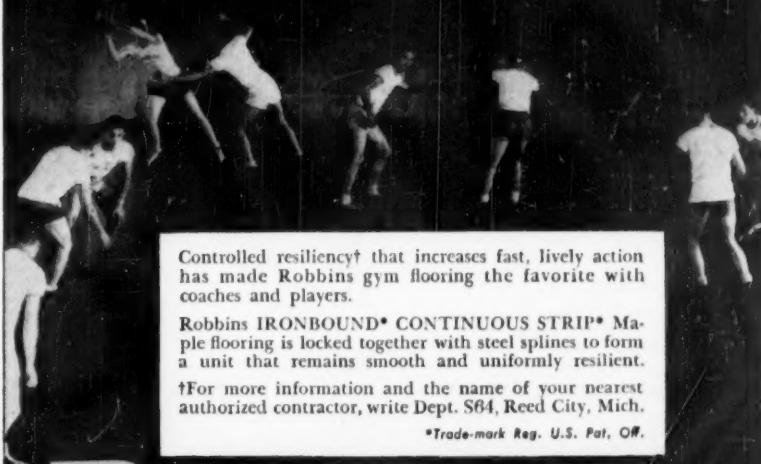
Miscellaneous

- **1954 Football Case Book (Official Rule Interpretations).** Edited and Published by the National Federation. 65¢.

- **1954 Six-Man Football and Soccer Rules.** Edited by H. V. Porter and Stephen Epler. Published by the National Federation. 35¢. (Both this rules book and the one above may be ordered from the National Federation, 7 South Dearborn St., Chicago 3, Ill.)

- **Best Sports Stories 1954** (With the Year's Best Sports Photographs). Edited by Irving T. Marsh and Edward Ehre. Pp. 328. Illustrated—photos. New York: E. P. Dutton & Co. \$3.50. (Contains the best 51 magazine and newspaper stories of the past year plus the best 30 photos. Also includes the 1953 champions of all sports.)

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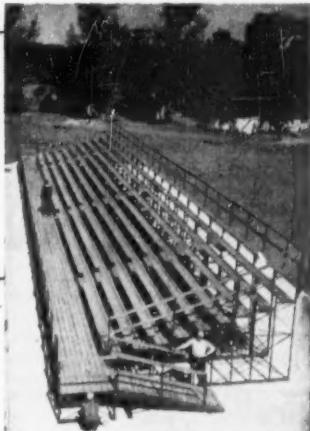
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AT ALL DRUGGISTS ONLY **69¢**

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Organization

(Continued from page 47)

that makes for success. Coaches should always remember that boys are eager and glad to "put out" for a coach for whom they have genuine respect.

The training rules should be laid down at a special meeting with the boys. The coach should carefully explain the code, together with the penalties for failure to live up to it. Where the code is properly presented, you'll usually find that the boys will not only be willing to follow it but will vote to put MORE teeth in it.

For example, you may ask the boys how they feel about subscribing a penalty of five push-ups to plays who drop a pass they should have caught. You'll usually find that the team will vote to up it to ten.

A team will always get behind a coach who they feel is making every effort to improve his knowledge of the game. And they'll always follow a coach who sees that they're properly equipped and who doesn't hesitate to go to bat for them on any reasonable request.

Consulting faculty members who've given players failing grades is NOT my idea of a reasonable request. The time for guidance is during the school term. The coach can send check-up cards to the various subject teachers requesting information about the boys' grades.

All boys delinquent in their studies should be interviewed and an inquiry made into their study habits. The aid of the home should

THE tremendous drive, spirit, and determination that made Harry Ostro an outstanding football player in high school and then at N.Y.U. are clearly reflected in Harry's military and coaching records. A genuine war hero, Harry served his country from 1940-45 and was a 1st Lt. with the 501st Par. Inf. 101st Airborne Division before being retired because of wounds received in action. In 1947, he took over a Lafayette eleven which had won exactly two games between 1941-46— and turned in an unbeaten season! His over-all record is now 38 wins, 5 losses, and 3 ties; and he's currently working on a 23-game winning streak! Quite a success story!

be enlisted in developing proper homework habits. This will help a great deal in preventing the failures which make boys ineligible.

The boys should also know that the coach has a sense of honor—that he'll play the best eleven boys regardless of social position, race, religion, etc.

The use of language is an important factor in dealing with adolescents. The coach should be careful of his expressions, especially under strain. Vulgarity demeans the boy at whom it's aimed—and diminishes the boys' respect for its user.

Harping criticism should also be avoided. This can become a habit, and when it does everybody stops paying attention to it and authority suffers. The coach should not become a nag—it leads to discouragement. And he shouldn't be afraid to compliment. It's amazing how a kind word can raise a boy's morale and confidence.

Whenever a boy breaks a rule, punishment should be swift and fitting. And once the "fine" has been levied, that should be the end of it.

Discipline boils down to the leadership qualities of the coach. By his very character, he can elicit the best from the boy. Remember: "Character is caught, not taught."

Coaches' Corner

(Continued from page 38)

Now that Bobo Newsom's retired, our idea of the travellest ball player is Clarence (Hooks) Iott. He's only 34, but Hooks, a pitcher, has worn the uniforms of 21 clubs in the majors and minors since 1938. Hooks comes from Springfield, Mo., is now with Miami Beach in the Florida-International League.

During his early years in the big leagues, Bobo Newsom wasn't adverse to putting a small bet on the horses—until news of his affliction reached the ears of Judge Landis. The baseball commissioner called him in for a conference.

"Look here, Bobo," he said, "a ball player who bets on the races can't keep his mind on the game. Suppose you're up at bat in the eighth inning of a close game and you've got a bet going on a horse, what'll you be thinking of—baseball or your bet?"

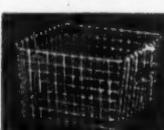
Bobo didn't hesitate an instant. "Judge," he said, "if it's a tight game in the ninth, I won't be in there batting."

Lefty Gomes: "When I played for the Yankees, I wore No. 11. But the first year or so, I had to wear No. 1. It seems I wasn't wide enough to wear two digits on my back."

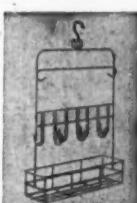
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AMERICAN PLAYGROUND DEVICE CO.	20
AMERICAN WIRE FORM CORPORATION	55
ATHLETIC INSTITUTE, THE	33
BIKE WEB COMPANY	3rd Cover
BROWN, M. D., COMPANY	49
CHAMPION KNITWEAR COMPANY	26
COLORADO H. S. COACHING SCHOOL	56
COWAN & DENGLER, INC.	52
CRAMER CHEMICAL COMPANY	44
DOLGE, C. B., COMPANY	50, 52
FENNER-HAMILTON COMPANY	56
GENERAL SPORTCRAFT COMPANY	2
GRISWOLD, LARRY	55
HAND KNIT HOSIERY COMPANY	42
HILLYARD CHEMICAL COMPANY	4
HORN SCHOOL EQUIPMENT DIVISION OF THE BRUNSWICK-BALKE-COLLENDER CO.	41
HUNTINGTON LABORATORIES, INC.	6
HUSSEY MANUFACTURING COMPANY	18
IVORY SYSTEM	4th Cover
KAHN, ARTHUR, COMPANY, INC.	51
LEAVITT BLEACHER COMPANY	53
MacGREGOR COMPANY, THE	15
McKAY, DAVID, COMPANY, INC.	40
McKESSON & ROBBINS, INC.	17
M & M LABORATORIES	52
MAPLE FLOORING MANUFACTURERS ASSN.	1
MEDART, FRED, PRODUCTS, INC.	19
MINNESOTA MINING & MFG. COMPANY	39
NADEN & SONS ELECTRIC SCOREBOARD CO.	52
NEW YORK STATE COACHING SCHOOL	50
NISSEN TRAMPOLINE COMPANY	37
OCEAN POOL SUPPLY COMPANY	49
PHARMA-CRAFT CORPORATION	54
QUAKER OATS COMPANY, THE	43
RAWLINGS SPORTING GOODS COMPANY	3
REEVES STEEL, INC.	52
REGAL AWARDS COMPANY	50
REMINGTON ARMS	2nd Cover
ROBBINS FLOORING COMPANY	53
SAND KNITTING MILLS CORPORATION	54
SNYDER TANK CORPORATION	51
STEGER MANUFACTURING COMPANY	45
STEWART IRON WORKS COMPANY, INC.	48

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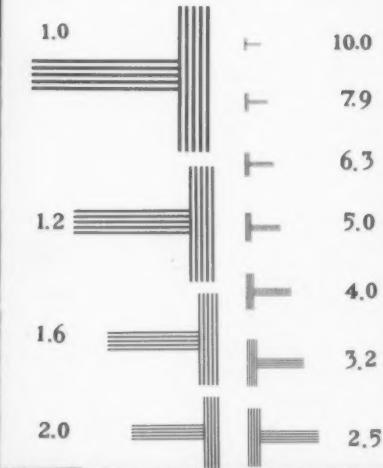
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In microfilming, it is necessary to determine the reduction ratio and multiply the number of lines in the chart by this value to find the number of lines recorded by the film. As an aid in determining the reduction ratio, the line above is 100 millimeters in length. Measuring this line in the film image and dividing the length into 100 gives the reduction ratio. Example: the line is 20 mm. long in the film image, and $100/20 = 5$.

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Resolution, as measured on the film, is a test of the entire photographic system, including lens, exposure, processing, and other factors. These rarely utilize maximum resolution of the film. Vibrations during exposure, lack of critical focus, and exposures yielding very dense negatives are to be avoided.

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